

## National All-Star Academic Tournament Round 5 Tossups

1. In one novel by this author, a historian hired to write General Llorente's memoirs seduces his employer's niece, only for her to turn into the old widow Consuelo. In another novel by this author, Ixca Cienfuegos searches for human sacrifices to appease his mother Teodula Moctezuma. One of this author's title characters is comforted by Padilla playing tapes of his former transactions. That character appears in a novel in which he marries Catalina after his true love Regina is killed by Pancho Villa, and becomes a tycoon after the Mexican Revolution. For 10 points, name this Mexican author of *Aura*, *Where the Air is Clear*, and *The Death of Artemio Cruz*.

ANSWER: Carlos Fuentes

022-09-12-05102

2. This man painted a series of still lifes of eggplants with peppers, apples, and plums. He painted a giant sign reading "Office and Plant, Eshelman, Feed" in one of his paintings of the buildings of Lancaster, Pennsylvania. He painted a pair of smokestacks in the background of his *After All* and depicted a metal chimney rising past the fire escape of a tenement in *Modern Conveniences*. This artist painted a grain elevator running up a white building in his *My Egypt*. Another of his paintings has cut off depictions of the words "Bill" and "Carlos" and includes three instances of the title number. For 10 points, name this American artist who used a William Carlos Williams poem as the basis for *I Saw the Figure 5 in Gold*.

ANSWER: Charles **Demuth** 

015-09-12-05103

3. One class of this type of problem is the so-called open shop problems. One major approach to handling this uses a multi-layer feedback queue. An important consideration when doing this is the burst rate; some methods for doing it require defining time quanta. Real-time operating systems have been known to run into priority inversion problems involving this which can make preemption hazardous. Common criteria for systems to do this include fairness, responsiveness, and throughput, the last of which is maximized by a shortest-job-first method. A simple solution to it is a first-in first-out method. For 10 points, name this problem of finding an optimal order for a series of events or processes.

ANSWER: scheduling (accept pretty much anything that indicates that making a schedule is involved)

001-09-12-05104

4. In her early career, this observer at Evian conference worked for the Histadrut Labour Council and served as her country's first ambassador to the Soviet Union. This leader's early reign was marked by the War of Attrition, and she formed the Labour party by uniting her country's Rafi, Ahdut Haavoda and Mapai parties. The fallout from the Agranat Commission forced this leader to resign; earlier she had succeeded Levi Eshkol in her highest post. She authorized Operation Wrath of God following the atrocities at the 1972 Summer Olympics Munich, although she fell from political grace after her country was taken off guard during the Yom Kippur War. For 10 points, name this female Israeli prime minister of the 1970's.

ANSWER: Golda Meir [or Golda Mebovitz]

5. This figure recited an incantation over his sleeping wife to exchange faces with her. This god named his four brothers and briefly earned their ire because he was allowed to sleep in his mother's bed. In one version, he died when the laughter of a fan tail caused the ruler of the underworld to crush him between her legs. This god was wrapped in the top-knot of Taranga, then nursed by seaweed before proceeding to use a jaw-bone of his ancestor to beat the sun. This figure transformed Irawaru into a dog, which distressed his sister Hina. Known for using a fishhook to haul up islands in the Pacific, for 10 points, name this trickster in Polynesian myth.

ANSWER: Maui

003-09-12-05106

6. This writer complained about his audience being distracted by a rope-dancer in the prologue to one of his plays. In the prologue to his last work, this author admits plagiarizing *Linked By Death*, a work of Diphilus. In that play, Micio raises his nephew Aeschinus and Demea brings up Ctesiphon. This author of *The Mother-in-Law* wrote a play in which Parmeno introduces Chaerea to the title character, and Pamphila is a gift for Thais from Phaedria and Thraso. For 10 points, name this Roman playwright of *The Eunuch* who was brought from Carthage as a slave, who often adapted the plots of Menander and wrote for a more sophisticated audience than his predecessor Plautus.

ANSWER: **Terence** [or Publius **Terentius** Afer]

063-09-12-05107

7. This man's special car was called the "Blue Moose." After World War I, he became addicted to morphine and was placed in the violent ward at Langbro asylum. During World War II, this man was mocked as "Mister Meier" in regards to a boast he had earlier made. Near the end of the war, this man sent a telegram to Hitler in which he announced he would take control of the Reich, prompting Hitler to angrily change his will. A winner of the Blue Max award, this man used potassium cyanide hidden in skin cream to avoid having to face the humiliation of a public execution. For 10 points, name this man who committed suicide before his hanging at Nuremberg, a rotund Nazi in charge of the Luftwaffe.

ANSWER: Hermann Goering

052-09-12-05108

8. In one story by this author, Tom King regretfully remembers humiliating the old prizefighter Stowsher Bill after losing a fight to Sandel. In a dystopian novel by this author, Avis and Ernest Everhard fight against the fascist Oligarchy. This author of the short story "A Piece of Steak" wrote a novel contrasting the love between Maud and Humphrey with the lack of morality of the title character, the captain of the *Ghost*. The protagonist of another of this author's novels kills his rival Spitz after being kidnapped from the estate of Judge Miller, and loses his ties to civilization after discovering the death of John Thornton. For 10 points, name this American author of *The Iron Heel*, *The Sea Wolf*, and *The Call of the Wild*.

ANSWER: Jack London

030-09-12-05109

9. Important to the virulence of this organism is the gene PfEMP1, and surface markers on those organisms include the vaccine candidate MSP-1. This organism's genome has one of the most AT rich genomes sequenced, and it uses the glycophorin-C protein on its host cells. This organism also has apicoplasts. Different phases of it see populations of schizonts, merozoites, and sporozoites. At various stages of the disease caused by this organism, both red blood cells and liver cells are infected, and it is transmitted through the Anopheles mosquito. For 10 points, name this genus of protozoan which causes malaria.

ANSWER: *Plasmodium* [or *Plasmodium* vivax, *Plasmodium* falciparum, etc.]

10. An incident discussing the consumption of strangled meat in this book is used to explain why Christians do not have to keep kosher. One couple in this book withholds a portion of profit from a land sale and presents it as the entire amount. This book describes the story of Sapphira and Ananias and contains prohibitions against worshiping idols and fornicating. Most famously, this book describes the stoning to death of Stephen by a mob, a crime approved by Saul, who himself is converted to Christianity in its pages. For 10 points, name this Biblical book written by Luke, that recounts what happened to the twelve followers of Jesus Christ.

ANSWER: **Acts** of the Apostles

032-09-12-05111

11. One general at this battle personally led the 57th Brigade into battle, after which General Rapp feared him dead and assumed command until General Davout reappeared alive. The center of the defender's lines in this battle contained a huge cannon-protecting earthworks called the Raevsky Redoubt. An important stronghold for the eventual losers of this battle was the left-flank "Bagration flèches." Prince Eugene commanded the Italy Corps in this battle, the defending forces at which were organized by Count Barclay de Tolly. The victors at the battle failed to take the offensive after they scattered Mikhail Kutuzov's troops. For 10 points, name this final offensive in Napoleon's invasion of Russia, a massive battle fought outside of Moscow in 1812.

ANSWER: Battle of **Borodino** [or **Borodinskaya** bitva; or **Moskva River**]

026-09-12-05112

12. This opera parodies the bel canto style of singing in the serenade "Di rigori armato di seno," which is cut short by a character arguing with a notary about a dowry. This opera's main love triangle is resolved in its third act trio "Hab' mir's gelobt," which is followed by two young lovers singing the duet "Ist ein traum." This opera's mezzo-soprano is assisted by the intriguers Valzacchi and Annina, and disguises himself as the maid Mariandel to avoid being caught in the chambers of the Marshallin. Hugo von Hofmansthal wrote the libretto for this opera, in which the lecherous Baron Ochs is foiled in his plans to marry Sophie, who instead falls in love with Octavian. For 10 points, name this comic opera by Richard Strauss, whose title refers to Octavian's presentation of a silver flower.

ANSWER: *Der Rosenkavalier* [or *The Knight of the Rose*]

024-09-12-05113

13. In this election, Dick Gregory was a write-in candidate for the Peace and Freedom Party. George Romney dropped from the Republican primaries of this year after claiming the military had "brainwashed" him. Volunteers for a Democratic candidate in this election shaved their facial hair to go "clean for Gene." The winner of this election used the "Southern strategy," although southern states voted for the American Independent Party. The incumbent announced he would not seek a second term after a surprising showing in the New Hampshire primary by Eugene McCarthy. For 10 points, name this presidential election that Hubert Humphrey lost to Richard Nixon.

ANSWER: Election of 1968

004-09-12-05114

14. One mathematician with this last name developed an algebra in which the most general associativity relations are x and y x times y equals y times x and quantity x-squared times y, close quantity times x equals x-squared times quantity y times x. Another mathematician with this last name proved the theorem that a simple, closed curve divides the plain disjoint interior and exterior regions; such curves also bear his name. Still another mathematician with this last is the second namesake of a method in which a matrix is inverted by reducing it reduced row-echelon form. For 10 points, give this last name of mathematician Wilhelm, who names a form of matrix elimination with Carl Friedrich Gauss.

ANSWER: Jordan

15. Johan Halvorsen arranged a version this composer's Passacaglia in G minor for viola and violin. One of this composer's works features the "Hailstone chorus," and is usually performed as its second and third movements, "Exodus" and "Moses' Song." His works are organized by HWV numbers, and he composed "The Arrival of the Queen of Sheba" for his oratorio *Solomon*. The aria "Ombra mai fù" is known as his "Largo." Another of his oratorios is set to a libretto by Charles Jennens, and includes the choruses "I know my redeemer liveth" and "For unto us a child is born." For 10 points, name this German-born Baroque composer of *Israel in Egypt*, who wrote the "Hallelujah chorus" for his oratorio *Messiah*.

ANSWER: George Frideric **Handel** [or Georg Friedrich **Haendel**]

023-09-12-05116

16. For coordination complexes the value of this quantity for the whole complex, known as the stability constant, is equal to the product of the stepwise values. The derivative of the natural log of this value with respect to the inverse temperature is equal to the negative change in enthalpy over R. Activities are approximated by using concentrations in the standard definition of this quantity in the law of mass action, and it is equal to the ratio of the rate of the forward and reverse reaction. For 10 points, name this chemical value equal to an expression involving the concentrations of products over reactants, symbolized K. ANSWER: **Equilibrium** Constant [or **K** before mentioned]

048-09-12-05117

17. Steve Hilton works as a strategist for this man, who defeated David Davis in a 2005 party election. Opposition to this man refers to him as a chameleon and he generated controversy after it was revealed he made a 1989 vacation trip to apartheid era South Africa. His cabinet consists of individuals as William Hague and Kenneth Clarke. In 2005, he succeeded Michael Howard as head of his party. Nick Clegg serves as this man's deputy, and he reached his highest position after a coalition was formed between the Conservatives and the Liberal Democrats. For 10 points, name this new Prime Minister of Great Britain. ANSWER: David Cameron

064-09-12-05118

18. This writer posited that places which concentrate work, sleep, and recreation into the same physical space and are demarcated by a physical barrier constitute "total institutions," which include everything from Nazi camps to the title places of his work *Asylums*. Passing and voluntary disclosure are involved in the five-phase model of how deviance is shamed, according to his book *Stigma*. He identified the "backstage" and "frontstage" areas of public spaces in another work, which identifies life as a series of "encounters" which are performed. For 10 points, name this Canadian sociologist who used the dramaturgical approach and symbolic interactionism to explain *The Presentation of Self in Everyday Life*. ANSWER: Erving **Goffman** 

019-09-12-05119

19. Several characters in this poem steal a "frightened look" at "the gray wizard's conjuring book," referring to Cornelius Agrippa's *Occult Philosophy*, which supplies the first of this poem's two epigraphs. The author's note to this poem explains that its "not unfeared, half-welcome guest" was Harriet Livermore, although it does not identify "the master of the district school," who is described as one of "Freedom's young apostles" who will "Uplift the black and white alike" after the Civil War. Near the beginning of this poem, the call "Boys, a path!" leads the central family to dig a tunnel to their barn, before that family tells stories by the fireplace in order to wait out the results of a storm. Subtitled "A Winter Idyl," for 10 points, name this John Greenleaf Whittier poem about a New England blizzard.

ANSWER: "Snow-Bound: A Winter Idyl"

20. After the poor preparation of this man's military in a war, he commissioned the Henderson-Brooks report to investigate. In his preface to his country's report on nuclear weapons, this man called them "frightful engines of destruction." Upon taking his most noted office, this man gave the "A Tryst With Destiny" speech. He set up the "Five Principles of Peaceful Coexistence" with China, although war would later break out in 1962. Along with Tito and Nasser, this man founded the Non-Aligned Movement. Other people to hold this man's position included his grandson, Rajiv, and his daughter, Indira. For 10 points, name this Indian statesman, the first prime minister of independent India.

ANSWER: Jawaharlal Nehru

052-09-12-05121

21. In one story from this work, a man who spends all of his money wooing his lover is forced to cook his prized falcon when he has her over for supper. In another of its stories, Alessandro runs the businesses of his uncles in London before traveling to Rome to get the pope's permission to marry the princess of England. Other works in this collection include one in which the generous Nathan is stabbed by Mitridanes, and one which inspired Lessing in which Melchizedek tells Saladin the story of the three rings when asked which religion is the truth. Another of its stories concerns the Marquis of Saluzzo who tricks Griselda into thinking her two children are dead, inspiring Chaucer's *Clerk's Tale*. For 10 points, name this collection in which Panfilo, Fiametta, and eight other Florentines tell ten stories each while escaping the plague, a work of Boccaccio.

ANSWER: The **Decameron** 

015-09-12-05122

22. One type of this device relies on an overlap between the valence and conduction bands to keep the Fermi level constant and operates by inducing a current across a narrow depletion region. Four of these elements are connected in a bridge to produce a full-wave rectifier. Voltage regulators are often designed using a specific type of this circuit element in which the current is independent of the applied voltage once the breakdown voltage is exceeded. The varactor type of these circuit elements is used to implement a variable capacitance. Seemingly negative resistance is exhibited by a variety of these devices named for Esaki; simpler ones consist of single PN junctions. For 10 points, identify these circuit elements which also exist in Schottky and Zener varieties and that typically pass current in only one direction.

ANSWER: diodes

043-09-12-05123

23. One section of this collection responds to the fears voiced by "Brutus" by claiming that the judiciary is "least dangerous" to political rights because it has "neither FORCE nor WILL, but merely judgment." Its tenth section argues that a large republic is best suited to control the effects of factions. The fifty-first section of this collection asserts "If men were angels, no government would be necessary," and that "Ambition must be made to counteract ambition" in the form of checks and balances. Published under the pseudonym Publius, for 10 points, name this group of essays arguing in favor of ratifying the Constitution, which were written by John Jay, Alexander Hamilton, and James Madison.

ANSWER: the *Federalist Papers* [or *The Federalist*]



- 1. This figure tells the title character of the novel in which he appears that the Shaper is just another human being and gives him the advice "seek out gold and sit on it." For 10 points each:
- [10] Name this omniscient pessimist whose dialogue with that title character makes up most of the chapter "Leo."

ANSWER: the dragon

[10] The dragon is a major character in this novel. It is named for the monster whose raids on the mead hall Heorot are ended by Beowulf in an Old English epic.

ANSWER: Grendel

[10] This American author of Vlemk the Box Painter and On Moral Fiction wrote Grendel.

ANSWER: John Gardner

015-09-12-05201

2. This musician's signature song was "When It's Sleepy Time Down South." For 10 points each:

[10] Name this trumpeter who helped popularize jazz by recording albums with his "Hot Five" and "Hot Seven." He also sang "What a Wonderful World."

ANSWER: Louis **Armstrong** [or **Satchmo**]

[10] Armstrong helped popularize this style of singing on the song "Heebie Jeebies." In this style of singing, performers improvise nonsense syllables that complement the melody.

ANSWER: scat singing

[10] This pianist claimed that he pioneered scat singing in 1907 and invented jazz in 1902. He formed a band called his "Red Hot Peppers" and composed standards like "King Porter Stomp," "Black Bottom Stomp," and "Wolverine Blues."

ANSWER: Ferdinand "Jelly Roll" Morton

004-09-12-05202

- 3. This philosopher argued that a moving arrow merely occupies a series of static spaces, and therefore does not move. For 10 points each:
- [10] Name this Greek philosopher from Elea, who argued against plurality in his many paradoxes, such as one in which Achilles fails to overtake a tortoise.

ANSWER: Zeno of Elea

[10] Zeno devised his paradoxes to support this philosopher's argument that the world never changes. In a Platonic dialogue named for this monist, he presents the Third Man argument to critique the theory of forms.

ANSWER: **Parmenides** of Elea

[10] In response to Parmenides's denial of multiplicity, this philosopher developed the theory that the world is made up of atoms, which was popularized by his student Democritus.

ANSWER: **Leucippus** 

4. The Bhagavad Gita describes the "Karma" and "Gnana" versions of this practice. For 10 points each: [10] Name this meditative practice important in various Eastern religions, including Hinduism, Buddhism,

and Jainism. The familiar "Hatha" version involves physical and breathing exercises which are practiced by non-believers as well.

ANSWER: voga

[10] The Bhagavad Gita also describes this form of yoga. This word is more commonly used in Hinduism to denote the active involvement in one's faith. It is translated as "devotion" or "participation" and stresses strong relationships and love.

ANSWER: Bhakti

[10] In yoga, breathing exercises are known as "pranayama," while the spiritual hand or finger gestures are known as these. Basic examples involve positioning one's fingers in a certain way while placing the hands palm-down on the thighs.

ANSWER: Mudras

052-09-12-05204

5. Serjeant Buzfuz successfully prosecutes this novel's title character for not marrying Mrs. Bardell. For 10 points each:

[10] Name this novel about the adventures of the title character and his friends Tracy Tupman, Augustus Snodgrass, and Nathaniel Winkle.

ANSWER: The **Pickwick Papers** 

[10] This author wrote *The Pickwick Papers* after publishing his collected *Sketches by Boz*. He criticized the institutions of Victorian England in his novels *Little Dorrit* and *Bleak House*.

ANSWER: Charles **Dickens** 

[10] *The Pickwick Papers* became hugely popular because of this character, the Cockney servant of Pickwick, who is first seen blacking boots at the White Hart Inn. His comic sayings, such as "'Out with it,' as the father said to the child when he swallowed a farthing," became known as his namesake "isms."

ANSWER: Sam Weller [or Samuel Weller]

064-09-12-05205

6. Out of revenge for being thrown from Mount Olympus, this god sent Hera a golden throne which trapped her when she sat on it. For 10 points each:

[10] Name this god of the forge, who fashioned a magical net to catch his wife Aphrodite in bed with Ares.

ANSWER: **Hephaestos** [or **Vulcan**]

[10] Hephaestus created this singly-veined, living bronze statue, who guarded Europa by wandering around Crete and throwing rocks at pirate ships.

**ANSWER: Talos** 

[10] Hephaestos also used bronze to craft the hooves of two bulls for King Aeëtes, who ruled this location, where Jason yoked the bulls and sowed dragon teeth in his quest for the Golden Fleece.

ANSWER: Colchis

- 7. This phenomenon sees the complete alignment of all of a material's molecular magnetic dipoles. For 10 points each:
- [10] Name this most familiar form of magnetism present in nickel and cobalt.

ANSWER: ferromagnetism

[10] This is the temperature above which a material cannot be ferromagnetic.

ANSWER: the <u>Curie</u> temperature [prompt on <u>Tc</u>]

[10] This is the decrease in electron density in ferromagnetic materials when electron spins align. It results in a free energy decrease that explains ferromagnetism. So-called biasing of this mechanism can be achieved by layering ferro- and antiferromagnets and underpins computer hard drives.

ANSWER: the **exchange** mechanism [accept **exchange** energy or **exchange** bias]

022-09-12-05207

- 8. During the rule of his predecessor, this man assented to the shooting-down of Korean Airlines Flight 007 and the invasion of Afghanistan. For 10 points each:
- [10] Name this Soviet General Secretary who was succeeded by Konstantin Chernenko, and who, as KGB director, ordered PROGRESS to crush Prague Spring, among his other dissent-suppressing policies.

ANSWER: Yuri Vladimirovich Andropov

[10] Andropov succeeded this manm who presided over a period of stagnation and signed SALT I with Richard Nixon, signaling the start of détente despite his namesake interventionist doctrine.

ANSWER: Leonid Ilyich Brezhnev

[10] During Andropov's bed-ridden days, he regularly met with this diplomat nicknamed "Mr. Nyet" for being difficult to deal with. Nonetheless, he negotiated the ABM and Nuclear Test Ban Treaties during his nearly forty years as Soviet foreign minister.

ANSWER: Andrei Andreyevich Gromyko

020-09-12-05208

- 9. The amount of this substance in the atmosphere is quantified in Dobson units. For 10 points each:
- [10] Name this gas that, in the stratosphere, absorbs ultraviolet radiation.

ANSWER: ozone [or  $O_3$ ]

[10] The relative lack of ozone is responsible for the temperature decrease with increasing altitude in this atmospheric layer above the stratosphere.

ANSWER: mesosphere

[10] The mechanism of ozonolysis involves the formation of molozonide and ozonide intermediates, both of which contain a ring with this many members.

ANSWER: five

003-09-12-05209

- 10. James K. Polk was famously the only President to keep all of his campaign promises. For 10 points each:
- [10] Perhaps the thorniest issue of the Polk administration was this act of territorial expansion, which ended the Presidential career of Anson Jones and raised the ire of Mexico.

ANSWER: the <u>annexation of</u> the Republic of <u>Texas</u> by the United States [or obvious equivalents]

[10] Illinois Congressman Abraham Lincoln introduced these bills, demanding that President Polk show exactly where American blood was spilled in skirmishes with Mexico over the Texas border, in an attempt to forestall war.

ANSWER: the **Spot Resolutions** 

[10] Polk's promise to settle the Oregon dispute in the U.S.'s favor led to this latitudinal slogan, which would have created an American land border with the Russian Empire had it been achieved.

ANSWER: "fifty-four forty or fight"

- 11. Answer these questions about muckrakers, for 10 points each.
- [10] This work by muckraker Jacob Riis used photographs to show the squalor found in New York tenements.

ANSWER: How the Other Half Lives: Studies Among the Tenements of New York

[10] Riis often walked the night beat with this New York City police commissioner who popularized the term muckraker. As president, this man used the Sherman Antitrust Act to enact his policy of trustbusting and signed the Pure Food and Drug Act into law.

ANSWER: Theodore Roosevelt [or TR; or Teddy Roosevelt; prompt on Roosevelt]

[10] The Pure Food and Drug Act was partially inspired by this author of a series of articles for *Collier's Weekly* on dangerous medicines, "The Great American Fraud."

ANSWER: Samuel Hopkins Adams

059-09-12-05211

- 12. After Cerdanya was ceded to France in this treaty, the Reaper's War ended as Catalonia was split in two. For 10 points each:
- [10] Name this treaty that was signed on Pheasant Island between France and Spain. Its failure at ensuring the payment of a marriage dowry led to the War of the Devolution.

ANSWER: Peace of the **Pyrenees** 

[10] This negotiator for the French in the Peace of the Pyrenees was a gambler who hated Jansenists and was co-regent with Anne of Austria before he was succeeded by Richelieu.

ANSWER: Cardinal Jules **Mazarin** [or Giulio Raimondo **Mazarino**]

[10] Mazarin ruled during the early years of this French monarch who built Versailles (VURR sigh) and styled himself the Sun King.

ANSWER: **Louis XIV** [prompt on **Louis**]

020-09-12-05212

- 13. These ironclads could be powered by twenty oars, had spikes on their roofs to deter boarding parties, and had dragons' heads that could emit smoke on their prows. For 10 points each:
- [10] Name these brainchildren of Admiral Sun-shin Yi, which twice destroyed a Japanese fleet.

ANSWER: **turtle ship**s [or **turtle boat**s]

[10] The turtle ship thus prevented two campaigns by Toyotomi Hideyoshi attempting to conquer this peninsula.

ANSWER: Korean Peninsula

[10] The successful repulse of Japan extended the rule of this dynasty, under which the Hangul alphabet was created. It ruled until Japan finally conquered the peninsula in 1910.

ANSWER: **Choson** Dynasty [or **Joseon** Dynasty; prompt on **Yi**]

003-09-12-05213

- 14. This character is cared for by F. Alexander after his prison sentence and he leads a gang composed of his "droogs" Georgie, Pete, and Dim. For 10 points each:
- [10] Name this character who loves both classical music and ultraviolence, the protagonist of a 1962 dystopian novel.

ANSWER: Alex

[10] The Nadsat speaking Alex is the protagonist of this novel by Anthony Burgess.

ANSWER: A Clockwork Orange

[10] In *A Clockwork Orange*, Dr. Brodsky subjects Alex to this treatment, which causes him to associate classical music with violence and become unbearably sick whenever he hears it.

ANSWER: **Ludovico** technique

- 15. For bacteria, these elements can be conjugative if they are lengthy or mobilizable if they are smaller. For 10 points each:
- [10] Name these mobile DNA sequences.

ANSWER: <u>transposons</u> [or <u>transposable element</u>s; or <u>jumping genes</u>]

[10] This scientist discovered transposons in maize in the 1940s and received a Nobel Prize in 1983 for that discovery.

ANSWER: Barbara McClintock

[10] These transposons in *Drosophila melanogaster* often insert at sites containing the octamer

GGCCAGAC and can cause hybrid dysgenesis. Molecular biologists often use them in mutagenesis.

ANSWER: P elements

023-09-12-05215

16. {yo: don't read the non-underlined portion of the answer to the second part if the team gets it wrong, lest you reveal the answer to part three}

It is located about ten miles into the Atlantic from the mouth of the Kourou River, just up the coast from Cayenne. For 10 points each:

[10] Name this smallest member of the Îles du Salut, which was formerly both a leper and penal colony.

ANSWER: **Devil's Island** [or **Île Du Diable**]

[10] Devil's Island is part of this South American political unit, whose current head of state is Nicholas Sarkozy.

ANSWER: Overseas Department of <u>French Guyana</u> [or Département d'Outre-Mer de la <u>Guyane</u> <u>française</u>]

[10] Like Martinique, Réunion, and Gaudeloupe, French Guyana is one of these political units of France, which have equal status to areas on the European mainland despite being located elsewhere.

**ANSWER:** overseas department

019-09-12-05216

- 17. This composer included a "Ritual Fire Dance" in his ballet *El Amor Brujo*. For 10 points each:
- [10] Name this composer of *The Three-Cornered Hat*.

ANSWER: Manuel de Falla [FAH-yah] y Matheu

[10] Manuel de Falla used melodies from this country to compose a series of "symphonic impressions" depicting nights in the gardens of this country. Isaac Albéniz [all-BAY-neath] incorporated flamenco rhythms into his piano suite about this country, *Iberia*.

ANSWER: **Spain** [or **Espana**]

[10] This Spanish violinist adapted gypsy melodies into his composition *Zigeunerweisen*. Lalo's *Symponie espagnole* is dedicated to this violinist, for whom Saint-Saens composed *Introduction and Rondo Capriccioso*.

ANSWER: Pablo de Sarasate

- 18. This field of chemistry was developed by John Warner and Paul Anastas. For 10 points each:
- [10] Name that field of chemistry that as its name suggests attempts to be sustainable and avoid using hazardous products.

ANSWER: green chemistry

[10] One of the focuses of green chemistry is using the supercritical form of this compound as a solvent. That supercritical form is being considered as a way to decaffeinate coffee.

ANSWER: carbon dioxide [or CO<sub>2</sub>]

[10] Green chemistry uses atom economy as a measure of reaction efficiency, as opposed to this more common quantity proportional to the ratio of actual quantity of desired products to theoretically possible quantity of desired products.

ANSWER: percent yield

064-09-12-05218

- 19. This story titles a collection that includes "The Wife Killer" and a story about the emigrations of the seven sons of Abba. For 10 points each:
- [10] Name this story about a poor baker who is bullied by children, marries the promiscuous Elka, and who is advised by the Spirit of Evil to urinate in his bread dough.

ANSWER: "Gimpel the Fool" [or "Gimpel Tam"]

[10] "Gimpel the Fool" was written by this Polish-born Yiddish author, whose other stories include *The Topsy-Turvy Emperor of China* and *The Family Moskat*.

ANSWER: Isaac Bashevis Singer

[10] In this Singer novel, the title character Yasha Mazur has an affair with Emilia Chrabotzky, who, along with Magda and Zeftel, he meets on his travels away from his wife Esther.

ANSWER: The <u>Magician of Lublin</u> [or Der <u>Kuntsnmakher fun Lublin</u>]

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20. This man painted a row of storefronts on a deserted street in *Early Sunday Morning*. For 10 points each: [10] Name this artist who also painted a man and woman working late in his *Office at Night* and another

pair out on a house porch in Summer Evening.

ANSWER: Edward **Hopper** 

[10] This Hopper painting shows a sign for five cent Phillies cigars above three customers sitting in a diner.

ANSWER: *Nighthawks* 

[10] In this Hopper painting, which is similar to *Chop Suey*, a woman sits alone at a table in the title location with a cup of coffee in her hand.

ANSWER: Automat

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- 21. Saint Augustine died during this tribe's siege of Hippo. For 10 points each:
- [10] Name this Germanic tribe which invaded Roman territory in North Africa in 428 CE. Under the leadership of Genseric, they sacked Rome in 455 CE.

ANSWER: **Vandal**s

[10] In 439, the Vandals successfully invaded this city, and made it the capital of their territory in North Africa. This city was destroyed by Scipio Aemilianus in 146 BCE during the Third Punic War.

ANSWER: Carthage

[10] The Vandals invaded North Africa during the reign of Emperor Valentinian III, who ordered the death of Flavius Aetius in 454 CE. While Aetius never got a chance to fend off the Vandals, he had earlier defeated Attila and the Huns at this battle in present-day France.

ANSWER: Chalons [or Catalaunian Plains; or Catalaunian Fields]