**OLEFIN: Outstanding Like Excellent Fantastic Invitational**

**Edited and written by members of the 2010-2011 TJHSST QB team**

ROUND 10

Tossups

1. **The act behind this event was ruled unconstitutional in Myers v. United States, while this event's delay was called for by Garrett Davis due to inadequate representation. During the trial in this event, Benjamin Butler questioned Adjutant General (\*)** Lorenzo Thomas. This event failed with Edwin Ross' vote of acquittal, and it was called for in a resolution by Thaddeus Stevens. This event’s trial was overseen by Salmon P. Chase and was the Radical Republicans' reaction to the removal of Edwin Stanton in violation of the Tenure of Office Act. For 10 points, name this event that almost resulted in the removal of Lincoln's successor as President.
ANSWER: **Impeachment** of Andrew **Johnson** [accept equivalents]

2. **One painting by this artist was stolen from the Isabella Stewart Gardner Museum in 1990 and has yet to be recovered. This artist of *The Storm on the Sea of Galilee* painted a work in which a woman in a red dress at right pours a goblet of wine on her sleeve. He depicted a king being shocked by the writing on the (\*)** wall in his painting *Belshazzar's Feast.* In another of this man's paintings, eight men inspect the arm of a cadaver, while another of his paintings depicting a company of men led by Captain Frans Cocq was long thought to have depicted an incorrect time of day. *The Anatomy Lesson of Dr. Tulp* was painted by, for 10 points, what Dutch painter of *The Night Watch?*
ANSWER: **Rembrandt** van Rijn [accept ***The Stoning of St. Stephen*** before mentioned]

3. **One work with this concept in its title claims that man is suspended in "webs of significance" he spun, and that work defined an explanation of not only a behavior but also its context as a "thick description." That work about this concept was written by the author of "Deep Play: Notes on the Balinese Cockfight". *The Interpretation of* (\*)** these concepts was written about by Clifford Geertz, and another prominent anthropologist called this concept "personality writ large" in a work comparing Pueblo, Dobu, and Kwakiutl ways of life. For 10 points, identify this concept, the socially transmitted knowledge and customs shared by a society.
ANSWER: **culture**s

4. **One character of this novel catches and cooks a goose with Kat, and in a later scene that protagonist of this novel feels anguished after his encounter with Gerald Duval. Another character in this novel receives (\*)**Kemmerich's boots after his death. The schoolteacher Kantorek urges his students to enlist in this novel, after which they are tormented by the cruel Corporal Himmelstoss. The protagonist of this novel is the last of his friends to die and is killed less than a month before the end of the war the novel takes place in. For 10 points, identify this novel about Paul Baumer set in World War I, a work by Erich Remarque.
ANSWER: ***All Quiet on the Western Front***

5. **In one issue of this comic book series, Wyatt Wingfoot declines an offer to join the Metro University football team and one of the main characters has his powers transferred to a man who dies in the Negative Zone. That issue, "This Man...This Monster!", followed this comic book's three-part story in which the Ultimate Nullifier and the assistance of The Watcher helped the title group and the (\*)** Silver Surfer defeat Galactus. The title characters of this comic gained their powers from cosmic rays during a test flight of a spaceship. For 10 points, identify this comic series which features The Invisible Woman and The Human Torch.
ANSWER: *The****Fantastic Four***

6. **This empire suffered a split between the Sufyanids and Marwanids. One conflict, which arose over who would succeede Muawiyah I, this empire's first head, saw forces of this empire, led by Yarzid I, slaughter Husain ibn Ali at the Battle of Karbala. One general of this empire reestablished its capital at Cordoba after this empire lost at the Battle of the** (\*) Zab. That general was Abd ar-Rahman, who had lost to Charles Martel at the Battle of Tours. This empire's capital was Damascus. For 10 points, name this Islamic caliphate succeeded by the Abbasid.ANSWER: **Umayyad** Caliphate [accept **Umayyad** Empire]

7. **This agent's env gene produces a glycoprotein precursor to gp41, which aids its entry into a host cell in a process countered by fusion inhibitor drugs. Signs of the disease caused by this virus include an opportunistic form of pneumonia and the rare skin cancer (\*)** Kaposi's sarcoma. The protein gp120 on its surface binds to CD4 receptors, allowing this lentivirus to enter the helper-T cells that it attacks and leading to a loss of cell-mediated immunity. AZT is one drug used in highly active antiretroviral therapy against it. For 10 points, name this virus which uses reverse transcriptase to attack the immune system, eventually leading to AIDS.
ANSWER: **Human Immunodeficiency** Virus or **HIV**

8. **One of this author's plays begins with a prologue by the Senecan ghost Machiavel; the main character of that play poisons his daughter Abigail for joining a nunnery and becoming a Christian. This writer wrote a poem which Sir Walter Raleigh penned a (\*)** "Nymph's Reply" to, whose speaker asks the reader to "come live with me and be my love." This author created a character who falls into his own boiling cauldron at the end of one play, the Jewish merchant Barabas. For 10 points, identify this Elizabethan-era playwright and possible spy, the author of *The Jew of Malta* and "The Passionate Shepherd to his Love."
ANSWER: Christopher **Marlowe**

9. **One of these corrects for spherical aberrations and is a Schmidt corrector plate. A condition under which these objects function properly both on- and off-axis is named for Ernst Abbe. These objects may be called *meniscus*, (\*)** *biconcave*, or *biconvex* depending on the curvature of each of their two faces. An equation named for the "thin" type of them relates the radii of curvature of their surfaces, their index of refraction, and their focal length, and they may produce either real or virtual images. For 10 points, name these objects often made of glass that refract light, found in eyeglasses and microscopes.
ANSWER: **lens**es

10. **In this country, Vulcan Point is an island in the crater lake of the Taal Volcano, itself on Volcano Island in Taal Lake, which can be viewed from Tagaytay Ridge. The Chico, Magat, and Ilagan rivers drain into the country's longest river, which empties into the ocean at Babuyan Channel. That river is the Cagayan River. Mount (\*)** Apo, this country's highest point, is a volcano with a small crater lake. The Visayan Islands, which include Panay, Bohol, and Leyte, lie between the larger islands of Mindanao and Luzon. For 10 points, identify this country whose national languages include a standardized form of Tagalog [tuh-GAA-lug], which has its capital at Manila.
ANSWER: Republic of the **Philippines**

11. **This man claimed that society progresses via the "cunning of reason" and he organized his works around categorial triads. This thinker also posited that free will can only exist in a society with property rights and contracts. This thinker claimed that knowledge is advanced when the union of an (\*)** antithesis and a thesis produces a synthesis. In addition to espousing absolute idealism, this thinker believed that man proceeds through a master-slave relationship, which is a form of this man’s dialectic. For 10 points, what German thinker wrote *The Philosophy of Right* and declared that "the real is rational" in his *The Phenomenology of Spirit*?
ANSWER: Georg Wilhelm Friedrich **Hegel**

12. **In one poem by this writer, the speaker states that "getting and spending, we lay waste our powers" and that he "would rather be / A Pagan suckled in a creed outworn." This poet of "The World Is Too Much With Us." also penned the line "She dwelt among the untrodden ways," and this writer of a number of (\*)** Lucy poems also wrote of dancing with daffodils in a poem that begins with the line "I wandered lonely as a cloud." Another poem by this writer begins by exclaiming that "five years have past!" since he visited the banks of the Wye river. For 10 points, identify this Romantic poet who collaborated with Coleridge on *Lyrical Ballads* and wrote "Tintern Abbey."
ANSWER: William **Wordsworth**

13. **In this opera, three angels each try to spend time alone with a man who fainted at the sight of a serpent. Those angels, along with the slave Monostatos, besiege the castle of one character who sings a prayer in “O Isis und Osiris”. The protagonist of this play takes the Test of Silence to reunite with his love interest, while another character from this opera, (\*)** Sarastro, foils the activity of the Queen of the Night. Papageno professes his love to an old lady in this opera, and later woos her through his birdcatching ability. The protagonist of this opera, Tamino, makes use of the title instrument to summon animals. For 10 points, name this opera by Wolfgang Amadeus Mozart.
ANSWER: *The****Magic Flute*** [accept *Die****Zauberflöte***; accept **K 620**]

14. **This function, with argument 1 plus x, is equal to the sum of [pause] negative one raised to the n plus one [pause] times x raised to the n [pause] all over n from [pause] n equals one to infinity. This function’s integral is equal to x times this function minus x. This function is equal to the definite integral of 1 over t from 1 to x, which implies that the derivative of this function is (\*)** 1 over x. Multiplying the argument of this function by a constant is equivalent to adding a constant to the value of this function, and one often uses the change of base formula on this function. For 10 points, name this function, the inverse of exponentiation, whose base is Euler’s number, *e*.
ANSWER: natural **log**arithm [accept **ln**]

15. **One of these creatures receives messages from the squirrel Ratatosk and sits atop Yggdrasil. Aztec mythology claims that one of these creatures eats a snake atop a cactus. An Aesopian fable about one of these creatures ends with a fox setting fire to this creature's home. Zeus abducted his (\*)** cup-bearer, Ganymede in the form of one of these creatures. It's not a vulture, but these creatures eat out Prometheus' liver every day. For 10 points, name these large birds of prey, the Bald variety of which is the national symbol of the United States.
ANSWER: **Eagle**s

16. **This man captured Azov from the Ottomans several years after putting down a Streltsy uprising led by his sister Sophia. That uprising cut short this man's Grand Embassy tour of Europe. In addition to taxing Old Believers, this man's religious reforms included establishing the Procurator of the Holy Synod. During one war, ended by the treaty of (\*)** Nystadt, this man was victorious at Poltava after losing to Charles XII of Sweden at Narva. Along with winning the Great Northern War, this man built a city that was later renamed Leningrad. For 10 points, name this modernizing Russian tsar whose epithet is "the Great".
ANSWER: **Peter I** [accept **Peter the Great**; accept **Peter** at the end]

17. **This artist created a sculpture with the motif of a circle bisected by a vertical line on each of its pillars, as well as a limestone table surrounded by twelve empty seats. Those installations by this sculptor are located in Targu Jiu and the last one is this man's Table of Silence. He stacked a number of polygons in his *The (\*)****Endless Column*, and carved two simplified figures with arms wrapped around each other in his work *The Kiss*. This sculptor is better known for a series of works accused of being "not art but manufactures of metal" and taxed by U.S. customs after being brought through an airport. For 10 points, identify this Romanian sculptor and creator of *Bird in Space.*
ANSWER: Constantin **Brancusi**

18. **One of this writer's works ends with the line "how do you like your blue eyed boy / Mister Death?" This poet of "Buffalo Bill" also wrote that "nobody, not even the rain, has such small hands" in another poem. Another poem by this poet of "somewhere i have (\*)** never travelled, gladly beyond" and "i sing of olaf glad and big" features the repetition of "sun moon stars rain" and states that "he sang his didn't he danced his did." For 10 points, identify this American poet of "anyone lived in a pretty how town" who used parentheses, lowercase, and other abnormal syntax and did not capitalize his name.
ANSWER: e e **cummings** [accept Edward Estlin **Cummings**]

19. **One proposal to split this country was known as the Hoare-Laval Pact. That proposal tried to end a war begun in this country by the Walwal incident. The Solomonic dynasty that ruled this kingdom was interrupted by Tewodros II. Another leader of this country signed the Treaty of Wuchale, which some claimed made it a protectorate, and succeeded (\*)** Yohannes IV. One leader of this country successfully repelled an invasion of it at the Battle of Adwa and was named Menelik II. Another leader of this country was forced out of power by the second Italo-Abyssian war. For 10 points, name this African country, formerly led by Halie Salassie, with a capital at Addis Ababa.
ANSWER: **Ethiopia** [accept **Abyssinia** before mentioned]

20. **This equation is inapplicable until the system is poised, and when not dependent on pH it represents a horizontal line on a Pourbaix diagram. The appearance of ion pairs reduces the accuracy of this equation at high concentrations, while its first term is zero when used for quantitative analysis in a concentration (\*)** cell. This equation gives a quantity equal to nonstandard Gibbs energy change per mole of electrons, explaining why a galvanic cell's voltage decreases to zero at equilibrium. Written as E equals E-standard minus R T over n F times the natural log of Q, for 10 points, identify this fundamental equation of electrochemistry, named for a German chemist.
ANSWER: **Nernst** equation

EXTRA: **One modern novel from this country is the Holocaust memoir *If This Is A Man.* Another work from this country features characters such as the author Silas Flannery and the villainous translator Ermes Marana; that novel from this country is about you, the Reader, and your love interest Ludmilla. Another writer from this country wrote plays such as one in which an actor (\*)** falls off a horse while playing the title character, *Henrico IV,* and one featuring Madame Pace, the Stepdaughter, the Son, and other characters in search of an author. For 10 points, identify this country, home to Italo Calvino and Luigi Pirandello.
ANSWER: **Italy** [accept **Italia**, **Italian** Republic, word forms such as **Italian**, etc.]

Bonuses

1. One poem by this writer poses the question "and you, Garcia Lorca, what were you doing down by the watermelons?" For 10 points each:
[10] Name this Beat poet who wrote of thoughts he had for Walt Whitman in "A Supermarket in California."
ANSWER: Allen **Ginsberg**
[10] Perhaps his best known work, this Ginsberg poem opens by stating that "I saw the best minds of my generation destroyed by madness, starving hysterical naked" and was dedicated to Carl Solomon.
ANSWER: ***Howl***
[10] In this other Ginsberg poem, the speaker thinks of his deceased mother as he walks on "the sunny pavement of Greenwich Village." It is titled for a Jewish prayer of mourning.
ANSWER: ***Kaddish***

2. This building was one of the first to use flying buttresses. For 10 points each:
[10] Identify this famous Parisian cathedral that is one of the greatest examples of Gothic architecture. Maurice de Sully ordered the construction of this cathedral.
ANSWER: **Notre Dame** de Paris [accept **Notre Dame** cathedral]
[10] This Swiss-French architect who designed another Notre Dame cathedral, the Notre Dame du Haut, also designed a modernist residence raised off the ground by pilotis, the Villa Savoye.
ANSWER: **Le Corbusier** [accept Charles-Edouard **Jeanneret**-Gris]
[10] This collection of essays by Le Corbusier discusses concepts such as the influence of "regulating lines" in great architecture, as well as the development of automobiles compared to that of the Parthenon.
ANSWER: ***Towards a New Architecture*** [accept ***Vers une architecture*** or ***Towards an architecture***]

3. One of this scientist's laws is a special case of Faraday's Law, while the other is a restatement of conservation of charge. For 10 points each:
[10] This scientist's loop rule states that the sum of voltage changes around a closed loop is zero, while his junction rule states that an equal amount of current leaves a junction as enters it.
ANSWER: Gustav **Kirchhoff**
[10] This term is often used to refer to a voltage source, as in a Kirchhoff loop calculation or Faraday's Law. It refers to the work needed per unit charge to produce a potential difference and is not, strictly speaking, a force.
ANSWER: **electromotive force** [accept **emf**]
[10] An example of an emf [pronounce like an acronym] is this device, which comes in alkaline and rechargeable forms.
ANSWER: **battery**

4. This man defeated his successor, Adolf Hitler, in the 1932 presidential election. For 10 points each:
[10] Name this leader of the Wiemar Republic, who shares his name with the zeppelin that exploded over New Jersey in 1937.
ANSWER: Paul Ludwig Hans Anton von Beneckendorff und von **Hindenburg**
[10] During WWI, Hindenburg led the German 8th's victory over the Russian 1st and 2nd Armies at this battle. One week later, Hindenberg defeated Rennenkampf at the First Battle of the Masurian Lakes.
ANSWER: Battle of **Tannenberg**
[10] This man fought alongside Hindenberg at the First Battle of Masurian Lakes as well as at the Somme. He also participated in the failed Beer Hall Putsch.
ANSWER: General **Ludendorf**

5. This man sought to reconcile his philosophy with Marxism in his *Critique of Dialectical Reasoning* and *Search for a Method*. For 10 points each:
[10] Name this French existentialist who defined a being-in-itself as an unconscious object in *Being and Nothingness* and penned the phrase "Hell is other people" in his play *No Exit*.
ANSWER: Jean-Paul **Sartre**
[10] Sartre penned this existentialist novel that contains Roquentin's first-person account of his struggle with existence's absurdity.
ANSWER: ***Nausea*** [accept *La****Nausée***]
[10] Sartre used this term to describe a being-for-itself's rejection of its total freedom. Sartre famously claimed that a man playing the part of a waiter and therefore acting as a being-in-itself is guilty of this concept.
ANSWER: **bad faith** [accept **mauvaise foi**]

6. It was published in the newspaper *L'Aurore* and defended a man who was sent to Devil's Island after his conviction. For 10 points each:
[10] Name this open letter to Felix Faure ["fau-ray"] which attacked the French government for convicting Alfred Dreyfus of treason.
ANSWER: "**J'Accuse**"
[10] This French naturalist writer wrote *J'Accuse*, as well as a twenty-volume work detailing Parisian society, *Les Rougon-Macquart*.
ANSWER: Emile **Zola**
[10] One of the most famous works from the Rougon-Macquart Cycle is this book detailing Etienne Lantier's participation in a coal workers' strike in the town of Montsou. Its title comes from a month of the French Republican Calendar.
ANSWER: ***Germinal***

7. A matrix is invertible if and only if this value does not equal zero. For 10 points each:
[10] Identify this value which, for a two by two matrix, is equal to the upper left value times the lower right value minus the upper right value times the lower left value.
ANSWER: **determinant**
[10] This method can be used to find the solution to a system of linear equations by dividing the determinant of a substituted matrix by the determinant of the original matrix.
ANSWER: **Cramer's** rule
[10] This other method for finding solutions to a system of equations involves row-reducing an augmented matrix to reduced echelon form, unlike a similarly named method in which the matrix is only row-reduced to echelon form.
ANSWER: **Gauss-Jordan** Elimination [prompt on **Gaussian** Elimination, prompt on **row-reduction**]

8. This man commissioned *Harold en Italie* from Hector Berlioz but subsequently never performed it. For 10 points each:
[10] Identify this legendary virtuoso violinist who performed on *Il Cannone.*
ANSWER: Niccolo **Paganini**
[10] Paganini notably composed this collection of pieces for solo violin, the last and perhaps most notable of which is in the key of A minor.
ANSWER: the **Twenty-four Caprices** for Solo Violin [accept "Capriccios" for "Caprices," prompt on just "Caprices" or "Capriccios"]
[10] In addition to writing a Prelude in C Sharp Minor and *Isle of the Dead,* this composer wrote a number of variations on Paganini's 24th Caprice titled *Rhapsody on a Theme of Paganini*. The 18th variation is inverted and takes place in D flat major instead.
ANSWER: Sergei **Rachmaninoff**

9. Elements one valence electron away from a noble-gas configuration are particularly reactive. For 10 points each:
[10] The elements of group 17, which include fluorine and chlorine, are called by this name, meaning "salt-forming".
ANSWER: **halogens**
[10] Goiter is caused by a lack of this halogen, necessary for thyroid function, which can be added to table salt and has a purple color when in vapor form.
ANSWER: **iodine**
[10] Potassium iodide is used as an indicator for these compounds, made of linear amylose polymers and branched amylopectin. When potassium iodide is mixed with one, a blue-black color is obtained.
ANSWER: **starch**es

10. The mythology of these people is chronicled in the Popol Vuh. For 10 points each:
[10] Name this Mesoamerican myth system which features the story of Hun Hunahpu, the god of maize, whose head was turned into a gourd and hung from a tree after a ballgame in the underworld.
ANSWER: **Mayan**
[10] Hun Hanahpu fathered these two figures by spitting on the woman Xquic [pronounced "shuh-QUICK"] and impregnating her. These figures avenged the death of their father by tricking the gods of the underworld into letting themselves be decapitated.
ANSWER: Mayan **Hero Twins** [accept: **Hunahpuh and Xbalanque** or **Hun Ahaw and Yax Balam**]
[10] This is the name of the underworld in Mayan mythology. The Hero Twins had to face deadly trials inside each of the six houses in this underworld.
ANSWER: **Xibalba**

11. She wrote an experimental novel about six characters and a dead seventh titled *The Waves*. For 10 points each:
[10] Name this English modernist who wrote of the Ramsey's visits to, once before and once after WWI, the titular location in *To the Lighthouse*.
ANSWER: Adeline Virginia **Woolf**
[10] In this Woolf novel, the title character hosts a successful party, while Septimus Smith jumps out of a window after his involuntary commitment to a mental hospital.
ANSWER: ***Mrs Dalloway***
[10] Woolf also wrote this book length essay in which she wrote that a woman must have money and the title object if she is to write fiction.
ANSWER: *A****Room of One's Own***

12. Artist Andy Warhol produced many well-known works in this artistic style. For 10 points each:
[10] Name this art movement that developed in the 1950s which frequently focused on mass-produced or common items.
ANSWER: **Pop** Art
[10] This American pop artist is best-known for using comic strips as subject matter for works like *Drowning Girl* and a work in which "rockets blazed through the sky," *Whaam!!*.
ANSWER: Roy **Lichtenstein**
[10] This other pop artist is known for his depictions of things like numbers and maps. He painted over materials like newspaper in his painting of an American flag.
ANSWER: Jasper **Johns**

13. It can come in type A and type B versions. For 10 points each:
[10] Name this quality of distinct individuals whose tests usually use sliding scales to measure component traits such as neuroticism and agreeableness.
ANSWER: **personality**
[10] This personality test, used for most career aptitude testing, is based off of ideas involving balance between introversion and extraversion, and also includes thinking/feeling and sensation/perception.
ANSWER: **Myers-Briggs** Type Indicator (accept **MBTI**)
[10] This personality test, developed by an Austrian in 1922, utilizes many cards featuring the title splotches of various colors and shapes to take advantage of projection in diagnosing mental illness.
ANSWER: **Rorschach** inkblot test

14. This event was immortalized in a picture by Joe Rosenthal. For 10 points each:
[10] Japanese troops under General Kuribayashi lost at what battle that saw American forces raise a flag on top of Mt. Suribachi?
ANSWER: Battle of **Iwo Jima** [accept **Operation Detachment**]
[10] "Hell's Pocket" and "Purple Heart Ridge" were parts of this other Pacific Campaign battle. Troops under Holland Smith captured Isley airfield from troops led by Yoshitsugu Saito's troops at this battle.
ANSWER: Battle of **Saipan**
[10] The Battle of Iwo Jima was the first invasion of the Japanese Home Islands, then under the rule of this emperor. His "Jewel Voice Broadcast" ultimately ended Japan's war against the U.S.
ANSWER: Emperor **Hirohito** [accept Emperor **Showa** or **Showa** Emperor]

15. This river in Africa has White and Blue tributaries. For 10 points each:
[10] Identify this longest river in the world, which flows through Egypt.
ANSWER: **Nile** River
[10] This reservoir on the Nile was formed by the Aswan High Dam and covered Abu Simbel, which contained several temples built during the reign of Ramses II.
ANSWER: Lake **Nasser**
[10] In Sudan, the Nile flows into this low lying, swampy area where moving mats of vegetation can change the course of the waterways that run through the area.
ANSWER: **Sudd**

16. In December 2010, the US Senate successfully repealed this policy in a stand-alone bill after failing to do so as a part of the Defense Authorization Act. For 10 points each:
[10] Instituted as a compromise in 1993, this military policy prohibited gays from serving openly in the military and made homosexual conduct grounds for termination. It formally ended on September 20th, 2011.
ANSWER: **Don't Ask, Don't Tell** [accept **DADT**]
[10] This centrist Maine Republican co-sponsored the stand-alone repeal bill along with Connecticut Independent Democrat Joe Lieberman. In spite of heavy lobbying, this senator's Maine colleague Olympia Snowe had voted against the Defense Authorization Act because Majority Leader Reid would not allow Republican amendments.
ANSWER: Susan **Collins**
[10] This act also failed to pass as an add-on to the Defense Authorization Act, as well as in a stand-alone incarnation. It has been proposed in various forms for nearly a decade and would give young undocumented immigrants a path to citizenship as a reward for two years of military service or higher education.
ANSWER: **DREAM** Act

17. The Second Italo-Abyssinian war violated this international agreement. For 10 points each:
[10] Named after a Secretary of State and his French counterpart was what pact that banned war as an "instrument of national policy" except in self-defense?
ANSWER: **Kellogg-Briand** Pact [accept **Pact of Paris**; or **General Treaty for the Renunciation of War**]
[10] The Kellogg-Briand Pact was signed by this famously silent successor to Warren Harding who, as governor of Massachusetts, gained fame for his actions during the Boston Police Strike.
ANSWER: Calvin **Coolidge**
[10] In response to the Mukden Incident, Japan, violating the Kellogg-Briand Pact, invaded this Chinese province. This province's invasion led to the Stimson Doctrine.
ANSWER: **Manchuria** [prompt on "Manchukuo"]

18. The Jacksonian type of these manifest as tingling sensations accompanied by seemingly-purposeful movements of the head and eyes. For 10 points each:
[10] Name these episodes of increased abnormal brain activity, the hallmarks of epilepsy.
ANSWER: **seizure**s
[10] This term refers to the abnormal sensations sometimes experienced before a seizure or a migraine. It can entail disturbances in vision or hearing, involuntary movements, or feelings of déjà vu.
ANSWER: **aura**
[10] Electrical activity in seizures can be measured with this technique, which involves recording from electrodes placed on the scalp. It provides a much higher time resolution than fMRI.
ANSWER: **EEG** [accept **electroencephalogram** or **electroencephalography**; do not accept **ECG** or any other middle letter]

19. One of this man's novels concerns a country in which the Maphia begin dragging people across that country's borders to kill them. For 10 points each:
[10] Identify this author of *Death With Interruptions* who wrote about a peninsula splitting in two in *The Stone Raft.*
ANSWER: Jose **Saramago**
[10] In this novel by Saramago an epidemic of the titular condition afflicts the city this novel takes place in. Characters from this novel include the Doctor's Wife, who kills the tyrannical King of Ward 3 and appears in this novel's sequel, *Seeing*.
ANSWER: ***Blindness*** [accept ***Ensaio sobre a cegueira*** or ***Essay on Blindness***]
[10] Saramago hails from this country on the Iberian peninsula, as does poet and translator Fernando Pessoa. This nation's national epic is *The Lusiads.*
ANSWER: **Portugal**

20. This ruler built the new capital of the Byzantine Empire and promptly named it after himself. For 10 points each:
[10] Identify this first Christian Roman emperor who issued the Edict of Milan.
ANSWER: **Constantine** I [accept **Constantine** the Great; or Saint **Constantine**; or Constantine the pretty okay]
[10] Constantine defeated Maxentius at this 312 AD battle, marking the beginning of his conversion to Christianity. Legend holds that Constantine was commanded in a dream to paint the cross on his soldiers' shields at this battle.
ANSWER: Battle of the **Milvian Bridge**
[10] Despite instituting reforms which revitalized the Empire, this emperor relentlessly persecuted Christians during his rule; the Tetrarchy collapsed after his abdication, causing Constantine to compete with Maxentius for the throne.
ANSWER: **Diocletian** [accept Gaius Aurelius Valerius **Diocletian**us]

EXTRA: Heron's formula claims that the area of one of these polygons is related to its semi-perimeter. For 10 points each:
[10] Name this type of three sided polygon, whose area also equals one-half its base times its height.
ANSWER: **triangle**
[10] This man's triangle is created by repeatedly placing three triangles, each with side-length one half of the original, inside the initial triangle.
ANSWER: Waclaw **Sierpinski**
[10] This law can be used to show that the dot product between two vectors equals their magnitudes times this law's namesake trigonometric function.
ANSWER: law of **cosines**