NASAT 2013
Round 5
Tossups

1. In this novel, a priest who has a marvelous collection of masks is found beheaded in a patch of hyacinths. That character, Father Huismans, teaches the son of Zabeth, a magician. The servant Ali takes the name Metty before coming to work with the protagonist of this novel, whose friend Indar says that his home country is not strong since they do not have a flag. The protagonist of this novel has an affair with Yvette, whose husband Raymond works in an area called the Domain for a ruler called the Big Man. For 10 points, name this novel in which Salim sets up a shop in an unnamed African country, written by V. S. Naipaul. ANSWER: A Bend in the River
2. In one piece, this composer memorialized an incident in which a crowd waiting at a train station spontaneously broke out into song. Nicholas Slonimsky instructed part of his ensemble to play four measures in the same time that another part played three to evoke dueling bands in his rendition of another "orchestral set" by this composer. He instructed the pianist to create a tone cluster by hitting the keys with a piece of wood in the "Hawthorne" movement of another work. This composer used minor thirds in his quotations of songs like "Old Black Joe" in the first movement of his most famous piece, which depicts the Robert Gould Shaw Memorial. For 10 points, name this American composer of Concord Sonata and Three Places in New England.
ANSWER: Charles Ives
3. One character in this play bursts onstage with a monologue in which he compares his tattered shoe to his mother and his whole shoe to his father while leading his dog Crab on a leash. In its first act, the maidservant Lucetta reads a love letter intended for her mistress, who angrily dismisses her and remorsefully calls her back, only to get angry again and rip up the letter. Later in this play, a group of banished outlaws demands that one of the title characters be their king. That character stops a rape in the final act, in which Thurio is exposed as a villain to the Duke of Milan and Sebastian blows her transvestite cover. For 10 points, name this early Shakespeare comedy about Valentine and Proteus, inhabitants of the title Italian city.
ANSWER: The Two Gentlemen of Verona
4. A literary theorist with this surname created the "dramatistic Pentad" to characterize an act and wrote $A$ Rhetoric of Motives. Another philosopher with this surname wrote an essay that championed the Petition of Right because it granted rights based not on "abstract principles," but on "patrimony." A philosopher with this surname wrote a treatise on aesthetics that associated one title concept with "delicacy" and the other with "terror." That author, who distinguished the sublime from the beautiful, advocated gradual change in an essay translated into French by Louis XVI. For 10 points, give this surname of the conservative author of Reflections on the Revolution in France.
ANSWER: Burke [or Kenneth Burke; or Edmund Burke]
5. In anticipation of public disapproval of this novel, the publishing company D. Appleton \& Company deleted several chapters from the original manuscript. It contains a scene in which the protagonist tosses a pinecone at a squirrel and enters a forest grove resembling a chapel, only to stumble upon a decaying, green corpse. Opening with the image of "the cold pass[ing] reluctantly from the earth, and the retiring fog reveal[ing] an army stretched out on the hills," this novel includes such characters as a talkative "tattered man" with two bullet wounds and Wilson, who takes care of the protagonist. Early in this novel, Jim Conklin announces the advance of the protagonist's Union regiment. For 10 points, name this novel about Henry Fleming, written by Stephen Crane.
ANSWER: The Red Badge of Courage
6. Part of this man's downfall came after a gang called the Cannibal Army turned against him following the death of its leader, Amiot Metayer. This leader was undermined by FRAPH, a paramilitary group led by CIA informant Emmanuel "Toto" Constant. He was a part of the Ti Legliz movement and ran programming for Radio Cacique. In 1988, this leader of the Lavalas movement survived the St. Jean Bosco massacre. Guy Philippe led a 2004 coup against this man, who had in 1994 been restored to power as part of Operation Uphold Democracy. As a priest in Port-au-Prince, he spoke out against the Duvalier regime. For 10 points, name this man who was Haiti's first democratically elected president.
ANSWER: Jean-Bertrand Aristide
052-13-83-05106
7. The n-th homotopy group of a topological space $X$ is the set of homotopy classes of maps from this construct to X . The stereographic projection projects this construct onto a plane. There is no continuous non-zero vector field on the surface of this construct. A technique called Ricci flow with surgery was developed to solve a conjecture which stated that every simply connected, closed 3-manifold is homeomorphic to one of these constructs. That conjecture was solved by Perelman and was proposed by Poincaré. The number of non-overlapping ones of these constructs that can touch a central one is the kissing number. These constructs are the boundary of a ball. For 10 points, identify these geometric figures whose three-dimensional form has a volume of four-thirds pi times radius cubed.
ANSWER: hyperspheres [or n-spheres; or 3-spheres; prompt on balls]
066-13-83-05107
8. This country suffered a disastrous defeat at the Battle of Oland during the Scanian War. To improve finances, one king of this country instituted the Great Reduction, in which land sold by the crown to the nobility was returned. One of its kings was captured during the kalabalik at Bender and later died during a siege of Fredrikshald. The imprisonment of Gustav Trolle by Sven Sture the Younger led to a massacre in this country's capital known as that city's Bloodbath. This country was ruled by kings from the Vasa family. For 10 points, name this Scandinavian country, which was ruled by Charles XII during the Great Northern War and earlier by Gustavus Adolphus.
ANSWER: Kingdom of Sweden [or Konungariket Sverige]
9. A variation of this technique for thick samples records the emission of conversion electrons. Spectra obtained via this technique are characterized by the amount of isomer shift, quadrupole splitting and hyperfine splitting. This technique uses the Doppler effect to introduce miniscule variations in energy, and cobalt-57, which decays to the isotope iron-57, is commonly used as a source. This technique relies on energy decay not occurring via phonons, leading to the mass of the entire lattice being considered in calculations. The effect behind this technique was used in the Pound-Rebka experiment. For 10 points, identify this resonant, recoil-free absorption of gamma radiation.
ANSWER: Mossbauer spectroscopy [or Mossbauer effect]
10. One drug used to treat this disease unusually turns one's urine orange and inhibits DNA-dependent RNA polymerase, while another one must be activated by KatG catalase-peroxidase. This disease can be vaccinated against using BCG. Especially dangerous in immunocompromised individuals, this disease's causative agents can be contained in granulomas, although this sometimes does not kill off the bacterium and leads to a latent phase. This disease, which can be diagnosed through the Mantoux test or a chest x-ray, is caused by a bacterium with an unusually thick and lipid-rich cell wall. For 10 points, name this disease caused by a Mycobacterium, which was referred to in the past as consumption.
ANSWER: tuberculosis [or TB; accept consumption before the tossup is finished]
140-13-83-05110
11. This artist used murky colors to show the construction of a new train station in his three Excavation paintings, then painted the station with a light blue facade in his later Blue Morning. The caption "why don't they all just go to the country for vacation" appears under one of this artist's drawings for the Socialist magazine The Masses, in which a trolley car heads for Vesey Street under laundry wires strung by tenement inhabitants. This artist of Cliff Dwellers painted many landscapes along the coast of Maine, but he is best known for a painting in which a referee of an illegal match attempts to get out of the way of the fighters. For 10 points, name this Ashcan painter of boxing scenes like Stag at Sharkey's.
ANSWER: George Wesley Bellows
12. One of these locations is home to a pink train named "Old 1225" and was founded so that children could meet Santa Claus any time of year. The road between two of these locations was terrorized by an outlaw gang known as the Innocents, led by Henry Plummer, the sheriff of one of them, Bannack. A more famous location of this kind was created after a widening sinkhole and a large release of carbon monoxide resulted from a subterranean mine fire in Eastern Pennsylvania. Centralia is currently one of these locations, many of which came to be after miners and prospectors packed their bags. For 10 points, give this name for uninhabited towns.
ANSWER: ghost towns [or synonyms; just ghost needed after "towns" is read; prompt on towns in Arizona on the first clue]
13. A man involved in this event ended up cleaning toilets voluntarily for forty years at Toynbee Hall. This event was exposed after drug dealer Johnny Edgecombe was arrested for shooting at a door. Dr. Stephen Ward left a suicide note because of this event saying he was "sorry to disappoint the vultures." A key incident in this event was when a woman mysteriously used the phrase "nuclear payload" when talking to investigators. That woman sleeping with a foreign naval attache was a showgirl named Christine Keeler. Shortly after this scandal broke, Prime Minister Harold Macmillan resigned. For 10 points, name this 1963 scandal in which a British Secretary of State for War had an affair with the mistress of an alleged Soviet spy.
ANSWER: Profumo affair
14. This man noted that impression formation can be changed by the order in which people read identical lists of character traits, and he responded to Lorge and Sherif's findings that people approved a statement more if it was credited to Thomas Jefferson instead of Lenin. The thesis adviser to Stanley Milgram at Princeton, this man's most famous experiment involved actors giving incorrect answers to a quiz regarding lines in an attempt to see if the lone non-actor would follow the majority. For 10 points, name this psychologist best known for his experiments measuring conformity.
ANSWER: Solomon Eliot Asch
15. A man who held this office was so angered by his predecessor's three-hour farewell address that he had his secretary, Algernon Thompson, read his opening speech for him. The second man to hold this post said, "The cultivated mind is the guardian genius of democracy" and printed worthless currency called "Redbacks." The last man to hold this post, Anson Jones, said, "The final act in this great drama is now performed" as he lowered a flag on February 19, 1846. The second man elected to this post was promoted to colonel after the Battle of San Jacinto. That man was Mirabeau Lamar, who succeeded Sam Houston. For 10 points, name this head of an independent republic that was annexed by the United States. ANSWER: President of the Republic of Texas [do not accept "governor of Texas"]

052-13-83-05115
16. One genre of this kind of music is played by the "Devil's Trumpets" and originated from a "Scottish dance" in Bohemia. In this kind of music, the melody and melodic harmony parts will sometimes play a third apart, resulting in dissonance with the armonia portion of the ensemble. The "son" music is a precursor to this kind of music, which was popularized by Linda Ronstadt in her album My Father's Songs. This kind of music is played by six violins, two or three trumpets, singers, guitars, vihuelas, and guitarrons. Performers of this music, which originated in Jalisco, dress like cowboys known as charros. For 10 points, name this Mexican folk music played by orchestras and bands.
ANSWER: mariachi
17. At the end of this novel, a woman released from an asylum for her husband's birthday shoots at a government minister during a procession. That woman's grandson learns from Marianne how she narrowly avoided being hanged by her mother, who was ordered by Marianne's father to kill their children after his suicide. This work begins with Nettlinger going to the office of the protagonist and being redirected to the Prince Heinrich Hotel. Nettlinger and the teacher "Old Wobbly" attack the protagonist and his friend with barbed-wire whips and are called "buffalo," in contrast to the peace-loving "lambs" such as Schrella. After destroying the abbey his father designed, Robert Fahmel withdraws from society and only takes comfort in the geometric exactness of the title game. For 10 points, name this novel by Heinrich Böll.
ANSWER: Billiards at Half-Past Nine [or Billard um Halb Zehn]
18. A compound consisting of only chlorine and this element converts carboxylic acids to acyl chlorides. This element's pentoxide actually consists of ten atoms of oxygen and four atoms of this element. In a phenomenon named for this element but ironically not actually demonstrated by it, an electron decays to a triplet intermediate state before returning to the ground state. The strong double bond this element forms with oxygen drives the Wittig reaction. In its most common form, this element exists as a tetrahedral structure which decomposes into a pentagonal structure, its "red" form, when heated. The white allotrope of this element is most common. For 10 points, name this element located directly below nitrogen on the Periodic Table.
ANSWER: phosphorus [or $\underline{\mathbf{P}}$ ]
19. This man was said to have defeated the Hyanteans and Aonians upon reaching Boeotia. In one myth, this hero disguised himself as a shepherd and played music for Typhon, allowing him to retrieve the sinews of Zeus. This man was assisted by a set of powerful warriors called Spartoi. This man and his wife were transformed into snakes near the end of their lives as punishment for this man slaying a snake sacred to Ares. During this man's wedding, his wife was given a necklace that caused misfortune for its owners. This man, who married Harmonia, undertook his most famous action after being told by the oracle of Delphi to cease seeking his sister Europa. For 10 points, name this Greek hero who founded the city of Thebes.
ANSWER: Cadmus
20. Karl Jansky's discovery of a radio source in this galaxy led to the foundation of radio astronomy. This galaxy obscures the area known as the Zone of Avoidance. The local shear and vorticity of rotation of this galaxy are constants characterized by Oort. The Large and Small Magellanic Clouds orbit this galaxy. In 2010, the Fermi Telescope discovered two gamma-ray-emitting bubbles that extend out-of-plane from this galaxy's center, which is an intense radio source called Sagittarius A* (A-star). For 10 points, identify this barred spiral galaxy, found in the Local Group, that is home to the Solar System.
ANSWER: Milky Way
21. This novel's protagonist laments, "I am in a chaos of principles--groping in the dark--acting by instinct and not after example," in an impromptu sermon he delivers to a crowd in the rain at a Remembrance Day procession. That protagonist meets his future wife while she washes chitterlings at a stream. Scathing public reaction to this novel led its author to devote himself solely to his poetry. The protagonist works in a bakery with his aunt Drusilla before marrying the coquette Arabella Donn. Towards the end of this novel, Little Father Time hangs himself and the two infant children of Sue Bridehead. For 10 points, name this novel about a stonemason, the last by Thomas Hardy.
ANSWER: Jude the Obscure
192-13-83-05121
22. A second species of this animal is named for Polish scientist Halszka Osmolska. A breakthrough study in 2007 discovered that this animal had ulnar papillae on its arm bones. One of these Late Cretaceous theropods was found in the "Fighting Dinosaurs" fossil, where this predator was preserved locked in combat with a Protoceratops. This Mongolian dinosaur's larger relatives included Deinonychus, and scientists now believe that this turkey-sized dinosaur had features that it may have flapped for stability while jumping onto larger prey. For 10 points, name this dinosaur with a sickle-claw on its foot, whose name translates as "fast thief."
ANSWER: Velociraptor
23. A legend holds the rulers of this kingdom swore to uphold the law in the "Oath of Sobrarbe." Its royal standard was a white shield quartered by the red cross of St. George, with a Moor's head in each of the quarters. One king of this place died fighting against the crusaders in the Battle of Muret a year after allying with Alfonso VIII at the Battle of Las Navas de Tolosa. Pedro III of this place was excommunicated after aiding anti-Angevin forces in the Sicilian Vespers. Its kings lived in the Aljaferia Palace after it was seized from the Emirate of Zaragoza. In 1162, this kingdom united with Barcelona, and under the Catholic Monarchs, it united with its western neighbor. For 10 points, name this kingdom that Ferdinand united with Castille.
ANSWER: Aragon

## hsapq

1. This disease results in hands and feet remaining small in comparison to the rest of the body. For 10 points each:
[10] Name this disease, caused by a deletion of several genes on chromosome 15, which results in constant hunger and incomplete sexual development.
ANSWER: Prader-Willi syndrome
[10] This phenomenon, in which one allele inherited from a parent is silenced, affects chromosome 15, explaining why Prader-Willi syndrome is so devastating. It shares its name with a phenomenon in which a bunch of baby birds followed Konrad Lorenz around.
ANSWER: imprinting
[10] Many who suffer from Prader-Willi syndrome develop this condition, whose "morbid" form is defined by a body mass index of over 35 .
ANSWER: obesity [or word forms]
020-13-83-05201
2. For 10 points each, name these works by Nathaniel Hawthorne.
[10] In this novel, Hester Prynne is marked as an adulteress after her affair with Arthur Dimmesdale. ANSWER: The Scarlet Letter
[10] Miriam, Hilda, and Kenyon meet Donatello, who resembles a creation of Praxiteles, while living in Rome in this last major Hawthorne novel.
ANSWER: The Marble Faun
[10] In this short story, the mirthful wedding celebration of Edgar and Edith is broken up by John Endicott, who forcibly converts the couple to Puritanism.
ANSWER: "The May-Pole of Merry Mount"
3. This section of a larger work includes a character named Edvard, who is a wholesaler's son. For 10 points each:
[10] Identify this volume from Either/Or in which the Aesthete recounts the story of how a man named Johannes emotionally and romantically manipulates a girl into liking him, then breaks up with her.
ANSWER: "The Diary of a Seducer" [or "The Seducer's Diary"]
[10] Either/Or was written by this Danish philosopher, who also featured Johannes the Seducer in his Stages on Life's Way.
ANSWER: Søren Aabye Kierkegaard
[10] This is the name of the girl whom Johannes manipulates. When she becomes strongly romantically engaged with Johannes, she's described as being "enthroned in her meaning as a woman."
ANSWER: Cordelia
4. In this work, Yankel the Jew is often forced to follow along with the schemes of the title character. For 10 points each:
[10] Name this novella in which the title character leads a Cossack revolt against the Poles along with his sons Ostap and Andrei.
ANSWER: Taras Bulba
[10] Taras Bulba is a novella by this Russian author, who is better known for short stories such as "The Nose" and "The Overcoat."
ANSWER: Nikolai Gogol
[10] In Gogol's short story "Diary of a Madman," the narrator, a simple clerk, imagines himself to be the holder of this title, which gets him promptly thrown into an asylum.
ANSWER: King of Spain [or obvious equivalents]
140-13-83-05204
5. Answer the following about Pacific island geography, for 10 points each.
[10] The HMS Bounty sailed from this tadpole-shaped island before the mutiny occurred. This largest island in French Polynesia has a peak at Mount Orohena and a capital at Papeete.
ANSWER: Tahiti
[10] King Tupou VI runs this nation of "friendly islands" east of Fiji, where women are forbidden to drink, and get hired to serve, an intoxicating drink called kava.
ANSWER: Kingdom of Tonga [or Pule'anga Fakatu'i 'O Tonga]
[10] This other archipelago nation, west of Fiji, speaks a creole called Bislama. It includes the islands of Espiritu Santo and Tanna.
ANSWER: Republic of Vanuatu
6. Recent research suggests that Lionardo Bartolini Salimbeni commissioned this work. For 10 points each: [10] Identify this set of three paintings, completed by 1440, depicting a battle between Florence and Lucca in 1432. Niccolo da Tolentino is shown on a white horse wielding a white general's baton in one of them.
ANSWER: The Battle of San Romano
[10] The Battle of San Romano was painted by this Florentine artist, who also painted The Hunt in the Forest and a Funerary Monument to Sir John Hawkwood.
ANSWER: Paolo Uccello
[10] Uccello's Resurrection and Nativity in the Duomo were created in this medium, which often adorned the windows of Gothic Cathedrals.
ANSWER: stained glass [prompt on partial answer]
189-13-83-05206
7. Legends surrounding this battle describe how it was preceded by Munuza marrying the sister of Pelayo. For 10 points each:
[10] Name this eighth-century battle in present-day Spain that effectively assured the independence of the kingdom of Asturias. It is considered the first major Christian victory over Muslims on the Iberian Peninsula.
ANSWER: Battle of Covadonga
[10] Covadonga is thus considered the beginning of this process, in which Christians took back Iberia from the Muslim Moors.

## ANSWER: Reconquista [or Reconquest]

[10] Pelayo of Asturias was likely a member of this tribe. In 507, this tribe's king, Alaric II, was killed by the Franks at the Battle of Vouille.
ANSWER: Visigoths [prompt on Goths]
8. This quantity's modulus is symbolized $G$ and equals Young's modulus over twice quantity one plus Poisson's ratio. For 10 points each:
[10] Name this stress acting within the plane of a material. It is symbolized with tau.
ANSWER: shear stress
[10] The quotient of normal stress and normal strain can be used as the proportionality constant in this law, which only applies up to the yield point. It is often used with springs.
ANSWER: Hooke's law
[10] The stress vector T of a plane with a unit normal vector n is given by n dotted with sigma where sigma is this mathematician's stress tensor. He also alternately names the engineering strain, which is the change in length over original length.
ANSWER: Augustin-Louis Cauchy
9. Taal is one deeply musically-oriented movie from this country. For 10 points each:
[10] Identify this country whose powerful film industry is popularly known as "Bollywood." Ashwariya
Rai is a famous actress from this country.
ANSWER: Republic of India [or Bharat ganrajya]
[10] This Indian director of Charulata may be best-known for Pather Panchali, Aparajito, and Apur Sansar, which comprise his Apu Trilogy.
ANSWER: Satyajit Ray
[10] This oft-remade Indian film starred Dilip Kumar in 1955 and Shahrukh Khan and Ashwariya Rai in 2002, the latter of which ends with a devastating scene in which Paro collapses at her mansion's gate while her alcoholic beloved dies at the other side.
ANSWER: Devdas
10. Answer the following about protests against the Vietnam War, for 10 points each.
[10] The Ohio National Guard killed four college students during a protest against the invasion of Cambodia at this university
ANSWER: Kent State University
[10] In 1972, this actress protested the war with a much-criticized trip to Hanoi, where she was photographed on an anti-aircraft gun.
ANSWER: Jane Fonda [or Lady Jayne Seymour Fonda]
[10] Students for a Democratic Society protested the war with one of these events at the University of Michigan. They consisted of seminars and lectures led by experts and aimed at fostering anti-war sentiment.
ANSWER: teach-ins
11. A test used to perform this technique divides the MST by the MSE to get the F-statistic. For 10 points each:
[10] Name this technique, an alternative to the T-test that can compare more than two groups of data. ANSWER: ANOVA [or Analysis of Variance]
[10] In ANOVA, if the F-statistic is significantly higher than the critical value, this hypothesis must be rejected. It refers to the default position that there is no correlation between two conditions.
ANSWER: null hypothesis
[10] The Yates correction can reduce the error in this test, a "goodness of fit" test that calculates a namesake statistic by squaring observed frequency minus expected frequency and dividing by expected frequency.
ANSWER: Pearson's chi-squared test
020-13-83-05211
12. This novel is set in the industrial city of Milton, which is modeled after Manchester. For 10 points each: [10] Name this novel whose protagonist, Margaret Hale, meets the Union leader Nicholas Higgins and eventually marries John Thornton, the owner of a cotton mill.
ANSWER: North and South
[10] North and South was written by this woman who also wrote a biography of Charlotte Brontë. Her novels include Mary Barton and Cranford.
ANSWER: Elizabeth Gaskell [or Elizabeth Stevenson]
[10] Many of Gaskell's works were published in Household Words, a journal published by this creator of Ebenezer Scooge.
ANSWER: Charles Dickens
13. A short essay that describes this type of person mentions that shaving is "a masochistic rite which seems to have been derived from either Sumer or ancient Egypt." For 10 points each:
[10] Name this person described by Ralph Linton in an essay that ends by describing how, "if he is a good conservative citizen, thank a Hebrew deity in an Indo-European language that he is $100 \%$ " this.
ANSWER: American
[10] Linton's work comes up in a piece on "Body Ritual among" these people, whose bathrooms are called shrines and potty-training techniques are described as initiations into a mystery by Horace Miner.
ANSWER: Nacirema
[10] "Body Ritual among the Nacirema" is written in the style of this kind of work common to cultural anthropology, which usually follows fieldwork and extensive study of a society.
ANSWER: ethnography
14. The only definite woman in this group ground a stone called mother-of-pearl into powder and ate it, and later vanished into thin air after an invitation to the court of Empress Wu. For 10 points each:
[10] Name this set of divine beings from Daoism, often depicted crossing the ocean to attend the peach banquet.
ANSWER: the Eight Immortals [or the Baxian; or the Pa-hsien]
[10] This immortal attained enlightenment after having a dream in which he was promoted to a high office in the imperial bureaucracy, but made a mistake and saw his entire family executed.
ANSWER: Lu Dongbin [or Lu Tung-pin]
[10] Another immortal, Chang Kuo, owned one of these animals he could fold up and put in his wallet. For his foolishness, King Midas was given the ears of one of these animals.
ANSWER: a donkey [or an ass; or a mule]
15. This man detailed his time working for Aeropostale in Wind, Sand and Stars. For 10 points each: [10] Name this author better known for a novella in which the title character lives on an asteroid called B-612, The Little Prince.
ANSWER: Antoine de Saint-Exupery
[10] This other twentieth-century French writer wrote about Fred Peloux in Chéri, as well as four novels about Claudine and the novella Gigi.
ANSWER: Colette [or Sidonie-Gabrielle Colette]
[10] Chéri was praised by this fellow French novelist of The Immoralist and The Counterfeiters. ANSWER: Andre Gide

192-13-83-05215
16. This locale is situated on the El Carmel hill. For 10 points each:
[10] Name this complex of buildings and gardens, whose central portion features a serpent-shaped bench. Its entrance is marked by a multicolored salamander called "el drac."
ANSWER: Park Guell
[10] The Nativity Facade is one side of this other building by Antoni Gaudi, an experimental cathedral with eighteen spires that has an estimated completion date of 2026.
ANSWER: Basílica i Temple Expiatori de la Sagrada Familia
[10] The Park Guell, the Sagrada Familia, and most of Gaudi's other buildings are located in this Spanish city in Catalonia.
ANSWER: Barcelona
192-13-83-05216
17. Movement of electrons in these molecules are denoted through "fish hooks," and one method of creating them is using ultraviolet light to split a diatomic gas. For 10 points each:
[10] Name these molecules, which have an unpaired valence electron.
ANSWER: free radicals
[10] An example of a radical is this species, which is diatomic oxygen with an extra electron. A class of enzymes, known as their namesake dismutases, converts this molecule into oxygen gas and hydrogen peroxide.
ANSWER: superoxide
[10] Radicals are often studied using this type of spectroscopy, which employs a magnetic field and microwave radiation to cause the unpaired electron to change spin states.
 esonance spectroscopy; or ESR spectroscopy]
18. Pope Innocent VIII's bull Summis desiderantes affectibus recognized the existence of these people. For 10 points each:
[10] Name this group of people who were the subject of Heinrich Kramer's book Malleus Maleficarum, which advocated torturing them.
ANSWER: witches [prompt on Satanists]
[10] The old method of trying witches involved trial by this practice, in which the accused were subjected to dangerous experiences, such as being thrown into water to see if they sank or floated.
ANSWER: trial by ordeal
[10] The book Daemonologie was written by this man who took part in the North Berwick witch trials. In the book, he advocates hunting witches.
ANSWER: James I of England [or James VI of Scotland; prompt on James]
19. Ann Putnam accuses this character of being able to speak to the dead. For 10 points each:
[10] Name this slave from Barbados belonging to Reverend Parris, who supposedly teaches witchcraft to a group of Puritan girls in Salem.
ANSWER: Tituba
[10] The aforementioned events occur in this Arthur Miller play, seen as an allegory for McCarthyism. ANSWER: The Crucible
[10] In The Crucible, this cruel judge is delighted by John Proctor's psuedo-confession. Act III opens with this man questioning Martha Corey before her husband Giles intrudes on the proceedings.
ANSWER: John Hathorne [or John Hathorne]
192-13-83-05219
20. Alexander Haig stated that he was "in control here" after this event. For 10 points each:
[10] Name this action perpetrated by John Hinckley, Jr., whose target had just given a speech to the AFL-CIO at the Washington Hilton Hotel.
ANSWER: attempted assassination of Ronald Reagan [accept synonyms for "assassination" such as killing]
[10] John Hinckley had been trying to impress this actress, who he became obsessed with after watching Taxi Driver multiple times.
ANSWER: Jodie Foster [or Alicia Christian Foster]
[10] During the attempted assassination, James Brady was shot and left permanently paralyzed. Brady was serving in this position and continued to hold it until the end of the Reagan administration, although largely in a symbolic role.
ANSWER: White House Press Secretary
21. One group of victims of the Holocaust hid in a house in this country at Prinsengracht 263. For 10 points each:
[10] Name this European country where Anne Frank was living when she wrote most of The Diary of a Young Girl. It was ruled by Queen Wilhelmina during World War II.
ANSWER: Kingdom of the Netherlands [or Koninkrijk der Nederlanden]
[10] This other young girl living in the Netherlands was a Christian who wrote the book The Hiding Place about her experiences sheltering Jews. She was sent to a concentration camp but survived.
ANSWER: Corrie ten Boom [or Cornelia ten Boom]
[10] This failed September 1944 operation, the largest airborne operation at the time, was an attempt by the Allies to end the war by moving through the Netherlands into Germany.
ANSWER: Operation Market Garden [or Battle of Arnhem]

