

Brookwood Invitational Scholars Bowl XXVI: Brought to you by the letter J'accuse
Round 9

Written and edited by Mostafa Bhuiyan, Kunal Naik, Adam Silverman, and Brady Weiler

Tossups

1. This work claims that “mankind are more disposed to suffers, while evils are sufferable.” William Small influenced this philosophical work, which at one point introduces “Facts to be submitted to a candid world” before its lengthy section on the “catalogue of wrongs.” A section of this work notes that “light and transient causes” are not prudent to effect change. The author of this work altered a quote from *Two Treatises of Government* climaxing with the word “estate.” This work notes that governments derive their just powers from the consent of the governed. For 10 points, name this work of political philosophy stating that “all men are created equal” written by Thomas Jefferson.

ANSWER: the **Declaration** of Independence

2. One type of cell in these structures has S-type and R-type anion channels which open to depolarize the membrane after an influx of potassium ions causes a conformational shift. These structures contain a spongy, permeable membrane below the upper palisade layer of cells. Stipules are attached near the petiole of these structures. The first step of C4 carbon fixation occurs in mesophyll cells in these structures. Reticulate veins in these structures are indicative of dicots. A cuticle on these structures prevents excess water loss through transpiration, which occurs in their stomata. For 10 points, name these plant structures where photosynthesis takes place.

ANSWER: **leaves** [prompt on “plants”; prompt on “stomata”; prompt on “guard cells”]

3. The victors of one battle in this war executed three-fourths of its generals after the battle because they didn’t rescue survivors. A failure during this war was blamed on defaced statues called *hermai*. The Long Walls were built to shelter a city during this war, but that city collapsed into a regime of Thirty Tyrants after defeat at the Battle of Aegospotami. The two halves of this war were separated by a six-year truce, the Peace of Nicias. Thucydides was a general during this war. Alcibiades led the Sicilian Expedition during this conflict. The Delian League lost this war, in part due to a plague which killed Pericles. For 10 points, name this war in which Sparta defeated Athens.

ANSWER: **Peloponnesian** War

4. One building in this city contains stained glass designed by Edward Burne-Jones and served as a hub for the Arts & Crafts movement. That building acted as the residence of William Morris and is called the Red House. The ceilings of a Neoclassical building in this city contain paintings by Peter Rubens. An architect from this city used the style of Palladio for the facades of his Banqueting House in Whitehall. A building in this city, home to Inigo Jones, was destroyed by fires three times and was most recently redesigned by Christopher Wren. For 10 points, name this city home to St. Paul’s Cathedral and Westminster Abbey.

ANSWER: **London**, England

5. (Note to moderator: Make the italicized words “about” and “subject” in the next tossup very, very obvious. Like, shout them if you have to.)

This author wrote about a man raised by monks who is told by the Prior to paint “the souls of men,” not the flesh. A work written *about* this author proclaims “Yes, call me by my pet-name!” This author of “Fra Lippo Lippi” wrote about a man who commissioned works by Claus of Innsbruck and Fra Pandolf. In that poem, the title character, whose heart was “too soon made glad,” was probably killed by the speaker, the Duke of Ferrara. This *subject* of *Sonnets from the Portuguese* wrote many dramatic monologues such as “My Last Duchess.” For 10 points, name this husband of Elizabeth Barrett.

ANSWER: **Robert Browning** [prompt on **Browning** until “Elizabeth Barrett”]

6. Convicted criminal Jabbar Gibson performed heroics during this event, which led to the resignation of Michael E. Brown. James Brissette and Ronald Madison were murdered in the aftermath of this event at Danziger Bridge. In response to this event, I-walls were replaced by T-walls in the Plaquemines and Saint Bernard Parishes. After this event, which occurred under the watch of Mayor Ray Nagin, Kanye West claimed that the president didn't care about black people. The Army Corps of Engineers and FEMA took the blame for the overflowing of Lake Pontchartrain during, for 10 points, what 2005 event which nearly destroyed New Orleans?

ANSWER: Hurricane **Katrina**

7. In one painting by this man, a golden helmet and portraits of Albrecht Durer, Rembrandt, and Vincent van Gogh adorn the top and right side of an easel. The phrase "Each according to the dictates of his own conscience" appears at the top of this man's portrayal of an old woman holding her hands in prayer. This artist looks at a mirror and smokes a pipe while drawing himself smoking a pipe in his *Triple Self-Portrait*. His painting of a turkey dinner is the "from want" section of the *Four Freedoms* series. For 10 points, name this artist of Rosie the Riveter who designed covers for the *Saturday Evening Post*.

ANSWER: Norman **Rockwell**

8. An increase in this element's concentration in the Earth's past led to a sharp decrease in the concentration of nickel. Banded iron formations arose during the "Crisis" caused by this element, which led to the Huronian ice age and a possible Snowball Earth. When nitrates or phosphates enter water, this element's concentration decreases due to eutrophication. Radical chlorine atoms can abstract an atom of this element in the stratosphere, which limits the ability to absorb UV-B light. A mass extinction of anaerobes occurred when this element was first produced by photosynthetic cyanobacteria 2.4 billion years ago. For 10 points, name this element which makes up ozone.

ANSWER: **oxygen** [or **O2**]

9. Most extant knowledge of this empire comes from the "Book of Highways and Empires" written by Al-Bakri. According to the *Tarikh as-Sudan*, this empire had 22 Muslim kings and 22 non-Muslim kings. The Cisse dynasty of this empire consisted mainly of its founders, the Soninke. The Sosso took over after the decline of this polity. Its capital was most likely located at Koumbi Saleh. This empire's modern-day equivalent was the birthplace of Kofi Annan. This empire grew rich off gold mining and trading before it was mysteriously replaced by Mali. For 10 points, name this first great West African empire on the "Gold Coast", in a country now led from Accra.

ANSWER: **Ghana** Empire

10. One character in this novel tells about his smallpox-laden family in order to gain passage onto the *Walter Scott*. Readers of this book are warned that "persons attempting to find a plot in it will be shot." An antagonist in this novel stages the *Royal Nonesuch* after mixing up Hamlet's "To be, or not to be" soliloquy. The protagonist hides money in Peter Wilks's coffin to evade the duke and the dauphin, and escapes his abusive "Pap" before being taught by Aunt Polly to be civilized. For 10 points, name this novel in which the title character travels down the Mississippi with his slave-friend Jim and meets Tom Sawyer, written by Mark Twain.

ANSWER: *The Adventures of* **Huckleberry Finn** [or just **Huck Finn**]

11. Murray Rothbard wrote a 1963 essay titled for this event in America. Irving Fisher identified nine factors which led to this event, factors which he called debt deflation. Milton Friedman and Anna Schwarz attributed this event to a 33% decrease in M2. This event was accompanied by a decrease in velocity, resulting in a massive shift left of the aggregate demand curve. It was blamed on business cycles by the Austrian school. Keynes advocated huge amounts of government spending to counter it. This event coincided with negative real shocks caused by the Smoot-Hawley tariff and the Dust Bowl. For 10 points, name this macroeconomic meltdown of the 1930s.

ANSWER: the Great **Depression**

12. This quantity's namesake equation can be stated as "partial derivative of u with respect to time equals alpha times Laplacian of u ." For a system in which this quantity is zero, pressure times volume to a certain index is constant. The partial of this quantity with respect to entropy equals temperature. Its flux is proportional to the temperature gradient according to Fourier's Law for one method of its transfer. The change in internal energy equals this quantity minus work. In an adiabatic process, this quantity is kept constant. It is transferred by convection, conduction, and radiation. For 10 points, name this form of thermal energy.

ANSWER: **heat** [prompt on "thermal energy"; do not accept "temperature"]

13. One of these animals lives along with Tigris in the Dvei Ilai, and is known as Keresh. One type of this animal is actually Maricha in disguise. Hrothgar's Hall of Heorot literally translates as a place for these animals. Ravana is able to capture Sita because Lakshmana and Rama are chasing one of these animals covered in gold. One of these from Keryneia was captured by Heracles during his Third Labor. In punishment for seeing a goddess bathing, Actaeon was transformed into one of these animals. For 10 points, name these animals which were considered sacred to Artemis.

ANSWER: deer [or stags; or does; or any other equivalents]

14. This president vetoed the McNary-Haugen Farm Bill twice due to objections to establishing price ceilings. He was criticized for his leadership during the "Great Mississippi Flood." This man signed the Indian Citizenship Act into law. This president capitalized on dissension in the opposition party by defeating compromise candidate John W. Davis in his reelection campaign. He put down a police strike during his time as Governor of Massachusetts. This man was sworn in at 3 in the morning after the death of the previous President, Warren Harding. For 10 points, name the 30th President of the United States, known as "Silent Cal."

ANSWER: Calvin Coolidge

15. This symphony's second movement calls for two harps, a common motif also seen in its composer's *Te Deum*. Drawing from Beethoven's similar "Pastoral Symphony," this symphony's third movement is in F Major and features an oboe and flute duet during the "Scene in the Fields." The *Dies irae* hymn is parodied in this symphony's final movement, "Dream of a Witches' Sabbath," and in the fourth movement "the artist" is beheaded in "March to the Scaffold." An *idée fixe* represents the composer's inspiration for this symphony, actress Harriet Smithson. For 10 points, name this programmatic symphony by Hector Berlioz.

ANSWER: Symphonie Fantastique [or Op. 14]

16. The first winner of the Nobel Prize in Literature from this country wrote "The Gentleman from San Francisco." A poetess from this nation wrote "Poem Without a Hero" and *Requiem*. A novel set in this country alternates between the story of Pontius Pilate and the story of Berlioz, who is killed by Woland in the book's opening chapter. A novelist from this nation was forced to refuse the 1958 Nobel Prize after his novel about Lara and Yuri was printed in France. This country's socialist realism was pioneered by Maxim Gorky. *The Gulag Archipelago* and *One Day in the Life of Ivan Denisovich* are set in, for 10 points, what Communist nation which no longer exists?

ANSWER: Soviet Union [or USSR; or United Soviet Socialist Republics; prompt on "Russia"]

17. The Kepler conjecture states that this quantity is maximized for HCP and FCC crystals. The reciprocal of this quantity is called specific volume. This quantity is the ratio between kinematic and dynamic viscosity. The melting point line has a negative slope when this quantity is greater for liquids than for solids. The ratio of it to a reference standard is specific gravity. Among elements, this quantity is greatest for osmium and iridium. For water, it's maximized at 4 degrees Celsius. If two substances are immiscible, the one with a greater value for this will form the bottom layer. For 10 points, name this quantity equal to mass over volume.

ANSWER: density [or packing efficiency before "volume"]

18. Israeli activist Benjamin Kahn promotes the conservation of these geographical features around the Red Sea. A city named after these features is called the "Brazilian Venice," and is the capital of Pernambuco. One of these features includes the "Great Blue Hole," and is the top tourist destination in Belize. The loss of zooxanthellae in these formations, causing a rise in temperature, leads to their "bleaching." Another of these features is threatened by the Crown-of-Thorns starfish and is located to the east of Mackay, a city in Queensland. For 10 points, name these living geographical features found on coasts, the largest of which is the "Great Barrier" one.

ANSWER: coral reefs [or barrier reefs]

19. While dying, a character in this novel mistakes her bed for the Fairy Cave at Penistone Crag. After mocking a boy for not knowing how to read, a character in this novel gives him a book, and the novel ends with their decision to marry on New Year's Day. The narrator of this novel is alarmed when a ghost's hand reaches into his room and starts bleeding from shattered glass. Isabella and Edgar Linton, heirs to Thrushcross Grange, marry the two protagonists of this novel. Narrated in parts by Nelly Dean and Mr. Lockwood, this novel's tragic couple is Catherine Earnshaw and Heathcliff. For 10 points, name this only novel by Emily Brontë.

ANSWER: Wuthering Heights

20. This nation attempted to assassinate another head of state in the Rangoon bombings. A leader of this country urged his people to "rush like the speed of Chollima" toward economic reform. Operation Paul Bunyan was launched against this country after two foreigners were killed in the "axe murder" of 1976, near Panmunjom in this nation's south. *Juche* originated in this country. Its forces captured the *USS Pueblo* in 1968. This country was the archrival of Syngman Rhee. This nation was defeated at the Battle of Inchon under its first ruler, Kim il-Sung. For 10 points, name this Communist country which was backed by the USSR in a 50s war against its southern neighbor.

ANSWER: Democratic People's Republic of North Korea [or DPRK; prompt on "Korea"]

The Round is Now Over. Continue Only if There is a Tie.

21. The macula densa, composed mostly of these structures, controls the GFR. These structures, which come in juxtamedullary and cortical forms, contain a long narrow region which is permeable to sodium ions but not water, called the ascending limb. The renin-angiotensin system is regulated by these structures, which are affected by antidiuretic hormone. Bowman's capsule in these structures surrounds the glomerulus, and they have a countercurrent exchange mechanism to osmoregulate through the Loop of Henle. They are vital for blood filtration. For 10 points, name these functional units of the human kidney.

ANSWER: nephrons [prompt on "kidneys"]

Round 9 Bonuses

1. David Garrick was renowned for his theatrical interpretation of this character, and Mr. Wopsle acts as him in *Great Expectations*. For 10 points each:

[10] Name this whiny Prince of Denmark in a play by William Shakespeare.

ANSWER: Prince **Hamlet**

[10] By many accounts, the greatest actor to perform Hamlet in the nineteenth century was this American, who founded a namesake theater in New York. He was sadly overshadowed by his brother.

ANSWER: Edwin **Booth**

[10] Edwin Booth appeared as this character in a Shakespeare production with his brothers Julius and John Wilkes to raise money for a statue in Central Park. This character is called “the noblest Roman of them all” by Cassius.

ANSWER: Marcus Junius **Brutus**

2. For 10 points each, answer these questions about silent films:

[10] One of the highest grossing silent films of all time is D.W. Griffith’s *The Birth of a Nation*, which includes an iconic scene of this white supremacist group burning a cross.

ANSWER: **Ku Klux Klan** [or **KKK**]

[10] This silent film includes a scene in which soldiers march down the Odessa Steps. This Sergei Eisenstein film centers on a mutiny against the Tsarist forces aboard the title ship.

ANSWER: **Battleship Potemkin** [or **Bronenosets Potyomkin**]

[10] A 1920 German Expressionist silent horror film by Robert Wiene known for its sharp angles stars Werner Krauss and is named for the “cabinet of” this doctor. He runs a sideshow displaying a Somnambulist named Cesare.

ANSWER: Dr. **Caligari** [accept *The Cabinet of Dr. Caligari* or *Das Cabinet des Dr. Caligari*]

3. Name some Democrats who will undoubtedly be squabbling onstage for the 2016 presidential nomination. For 10 points each:

[10] All signs point to this ex-Secretary of State and rival to Barack Obama in 2008 running, and winning the nomination.

ANSWER: Hillary Rodham **Clinton** [or **Hillary** Clinton]

[10] This first head of the Consumer Protection Bureau and successor of Scott Brown as senator from Massachusetts is expected to challenge Hillary for the nomination.

ANSWER: Elizabeth Ann **Warren**

[10] This governor of Maryland has publicly declared interest for the 2016 Democratic nomination. He signed a 2012 law legalizing same-sex marriage in his state.

ANSWER: Martin Joseph **O’Malley**

4. One scandal in this industry resulted from Thomas Durant’s ability to construct his own equipment disguised as a French company. For 10 points each:

[10] Name this industry plagued by the Credit Mobilier scandal. Union Pacific is involved in this business once led by Cornelius Vanderbilt.

ANSWER: **railroads**

[10] This 19th century financial crisis occurred during the presidency of Ulysses S. Grant and began after Jay Cooke failed to raise funds for the railroad industry. The Greenbacks were formed in response to this “panic”.

ANSWER: Panic of **1873**

[10] Powerful industrialists like Jay Gould and James Fisk in control of the railroad industry became known by this two word term. It reflected their use of exploitative and illegal methods to make money.

ANSWER: “**robber barons**”

5. The x-squared and y-squared terms in the equation describing these shapes have the same sign but different coefficients. For 10 points each:

[10] Name these conic sections defined as the set of all points at which the sum of the distances to two distinct foci is constant.

ANSWER: ellipses

[10] In order to graph conics, it's often necessary to perform this operation, which rewrites a quadratic trinomial in terms of a perfect square trinomial by taking half the middle coefficient, squaring it, and adding it to both sides.

ANSWER: completing the square [or word forms]

[10] For a horizontal ellipse, this quantity is equal to the square root of one minus the coefficient of x squared over the coefficient of y-squared. This quantity is always between zero and one for an ellipse.

ANSWER: eccentricity [prompt on "e": prompt on "epsilon"]

6. This island is the main base of the Moro Islamic Liberation Front, a separatist group. For 10 points each:

[10] Name this island, the only Muslim island of its country. It's also the second-largest island in its country and the furthest to the south.

ANSWER: Mindanao

[10] Mindanao is located in this Asian island country which has its capital at Manila on the island of Luzon.

ANSWER: Republic of the Philippines

[10] The long, narrow Filipino island of Palawan extending southwest toward Indonesia nearly borders this other island. Sabah and Sarawak are the Malaysian states located on this island.

ANSWER: Borneo

7. D'Alembert co-edited this project and head-edited its math articles. For 10 points each:

[10] Name this book published in eighteenth century France, considered a reference for all knowledge. Like its modern-day descendant, the *Britannica*, this book was planned by many contributors.

ANSWER: the Encyclopédie, *ou dictionnaire raisonné des sciences, des arts et des métiers* [or the Encyclopedia]

[10] The head editor of the *Encyclopedia* was this Frenchman who also wrote *Jacques the Fatalist*.

ANSWER: Denis Diderot

[10] The sections on literature and history were edited by this author of the *Philosophical Dictionary*. His best-known work ends with the imposition that we must "cultivate our garden".

ANSWER: Voltaire [or Francois-Marie Arouet]

8. Answer the following about quotes from the New Testament, for 10 points each:

[10] This is the only Gospel which quotes Jesus as saying, "My God, My God, why have you forsaken me?" on the cross. It also happens to be the first Gospel and the first book of the New Testament.

ANSWER: Gospel According to Matthew

[10] A famous verse in First Corinthians notes that this "is patient", and this "is kind." It is the "greatest" of a group of three virtues also including "faith" and "hope."

ANSWER: love

[10] The first sentence in the Book of John notes that, in the beginning, there was *this*, and *this* was God, and *this* was with God. This term is often used in its Greek translation, where it may represent Christ himself.

ANSWER: the Word [or Logos]

9. The common ion effect is a special case of this principle. For 10 points each:

[10] Name this principle in which a change to a chemical equilibrium causes a corresponding shift to relieve the change. For example, adding a product will cause the equilibrium to shift toward the reactants.

ANSWER: Le Chatelier's principle

[10] One factor that does *not* cause a Le Chatelier shift is the addition of one of these species, which lowers the activation barrier for both forward and reverse reactions. These species speed up reactions.

ANSWER: catalysts

[10] In this type of equilibrium, increasing the temperature will cause a shift toward the reactants. In reactions of this type, the bond energy of the products is greater than that of the reactants.

ANSWER: exothermic reactions

10. Answer the following about mortal catastrophes around the Indian subcontinent in the twentieth century. For 10 points each:

[10] In 1984, a Union Carbide pesticide plant's storage tank leaked methyl isocyanate near this city, resulting in the worst industrial disaster in history and the death of nearly four thousand people.

ANSWER: **Bhopal**, India

[10] 138,000 people were killed when a cyclone hit the Chittagong region of this low-lying country in 1991. This nation, once "East Pakistan", fought a 1971 war for independence from Pakistan.

ANSWER: People's Republic of **Bangladesh**

[10] The Partition of India into the two Pakistans likely caused around 500,000 deaths due to infighting. The partition took place in August of this year.

ANSWER: **1947**

11. *Note to moderator: do not reveal alternate answerline to the first part.*

This work was composed over its composer's holiday in Sölleröd. For 10 points each:

[10] Name this work that opens with a timpani roll followed by a tumbling flourish down multiple octaves by the soloist. This work is the only work in its category by its composer.

ANSWER: **Piano Concerto in A minor** [or **Grieg's piano concerto**]

[10] The *Piano Concerto in A minor* is by this Norwegian composer of incidental music to *Peer Gynt*.

ANSWER: Edvard **Grieg**

[10] In this piece from *Peer Gynt*, the main theme starts in the basses and bassoons before transposing up a perfect fifth in the next section. This piece gradually quickens to a *prestissimo* ending as Peer flees from the lair of the trolls.

ANSWER: **"In the Hall of the Mountain King"** [or **"I Dovregubbens hall"**]

12. This city began wearing distinctive masks at its Carnival after Ulrich II was taken prisoner. For 10 points each:

[10] Name this "Most Serene Republic" which rivaled Genoa for control of Mediterranean trade. Its settlement on top of sand bars explains why most of this city consists of canals.

ANSWER: **Venice** [or **Venezia**]

[10] The military and political leaders of Venice were known by this title. It was held in the late 15th century by Agostino Barbarigo.

ANSWER: **Doge** of Venice

[10] The Republic of Venice participated in the victorious Battle of Lepanto as a member of this Catholic alliance organized by Pius V to combat the Ottoman Empire.

ANSWER: **Holy League** [or **Liga Santa** or **Lega Santa**]

13. After undergoing this procedure, the novel's protagonist asks a beautiful woman if he can be her true knight, and attempts to lick the boots of a man who steps on his face. For 10 points each:

[10] Name this procedure which renders that character unable to listen to Beethoven's Ninth Symphony. It is initially mistaken for just some vitamins and movies.

ANSWER: the **Ludovico** technique

[10] Alex undergoes the Ludovico technique, conditioning him to avoid ultraviolence, in this novel by Anthony Burgess, made into a Stanley Kubrick film.

ANSWER: **A Clockwork Orange**

[10] Alex and his fellows constantly communicate in this language which mixed teenage slang with Russian. In this language, the word *droog* means "friend."

ANSWER: **Nadsat**

14. This quantity is essentially zero in superconductors. For 10 points each:

[10] Name this quantity which is the proportionality constant in Ohm's Law between the current and the voltage drop through a namesake device.

ANSWER: resistance [or R]

[10] Superconductors demonstrate the "perfect" form of this phenomenon as a result of the Meissner effect. In this phenomenon, a magnetic field is created to oppose an external field.

ANSWER: diamagnetism [or word forms; prompt on "magnetism"]

[10] BCS theory predicts that the charge carriers in superconductors are Cooper pairs, which undergo this process, in which many particles with integral spin occupy the same quantum state. Rubidium atoms do this at 170 nanoKelvin.

ANSWER: condensation [or condense; or word forms; or Bose-Einstein condensation or word forms or BEC]

15. This man is caught with his feet in flour in an affair with King Mark's love. For 10 points each:

[10] Name this knight who loves two different women named Iseult.

ANSWER: Sir Tristan [or Sir Tristram]

[10] At one point, Tristan is abducted by this queen, Arthur's half-sister and general troublemaker. She releases Tristan but obligates him to fight with a shield mocking Arthur at the next tournament.

ANSWER: Morgan le Fay [or Morgaine; or Morgana; or other close variants; do not accept "Morgause"]

[10] Tristan was an enthusiastic hunter, just like this king who breaks the Sword in the Stone in the second book of *Le Morte d'Arthur*. This king is best-known for his dogged and unrewarding pursuit of the Questing Beast.

ANSWER: King Pellinore

16. Mass hysteria broke out in 1962 when students at a Tanganyika boarding school began an "epidemic" over this activity. For 10 points each:

[10] Name this rather benign activity, which titles a 1624 portrait of a man with an enormous upward facing mustache, even though the man is not doing this action.

ANSWER: laughter (or laughing)

[10] This gas which induces euphoria and laughter in people who inhale it is less known by its scientific name. For 10 points, give its scientific name.

ANSWER: nitrous oxide (or N2O)

[10] One variant of this practice involves laughing voluntarily in large groups. In the Western world, this spiritual activity from India consists of various exercises like the full lotus.

ANSWER: yoga

17. (Note to moderator: The word "Noone" in the following bonus should be pronounced "No one". However, do not reveal the spelling of the word to the players.)

This poem ends with the refrain, "sun moon stars rain." For 10 points each:

[10] Name this poem set in a place "with up so floating many bells down." Noone stops to kiss the face of this poem's title character after he dies.

ANSWER: "anyone lived in a pretty how town"

[10] "anyone lived in a pretty how town" was written by this American poet known for his lack of capitalization and punctuation of words.

ANSWER: Edward Estlin Cummings [or ee cummings]

[10] Cummings opposed this American literary movement of the 1920s. These authors wandered European cities after WWI. Gertrude Stein and John dos Passos embraced this movement.

ANSWER: the Lost Generation

18. Name some techniques you might use in a molecular biology lab, for 10 points each:

[10] In this technique, fragments of DNA are passed through an agarose porous material with an electric field, to separate the fragments by length.

ANSWER: gel **electrophoresis**

[10] The gel may then be absorbed onto a membrane and treated with a labeled DNA probe in this technique named for a British biologist, which is used to identify specific sequences of DNA.

ANSWER: **Southern** blot

[10] To purify a protein, you could synthesize one of these other proteins which have specific substrate-binding domains, to bind only to it. These Y-shaped proteins are produced against antigens in the immune system.

ANSWER: **antibodies** [or **antibody**; or **immunoglobulins**]

19. For 10 points each, answer these questions about the American response to communism:

[10] This theory put forth by Eisenhower predicted that, if one country came under the influence of communism, the rest of the countries on that continent would rapidly follow suit.

ANSWER: **domino** theory [accept **domino** effect]

[10] This name was given to the part of the Truman Doctrine which attempted to stop the Soviet Union's spread of communism into Korea and some African nations.

ANSWER: **containment**

[10] This Foreign Service officer, often called the "father of containment," outlined his policy of stopping Soviet expansion in the "X-Article."

ANSWER: George Frost **Kennan**

20. In a later portrait of this figure, she holds the sides of a giant, blue dress adorned with white stripes. For 10 points each:

[10] Name this daughter of a Spanish monarch. In the most famous painting of her, she wears a white dress and is surrounded by a brown dog and two dwarves.

ANSWER: La **Infanta Margarita** [or **Margaret Theresa** or **Margarita Teresa**]

[10] La Infanta Margarita is surrounded by two dwarves, a brown dog, and her "maids of honor" in this most famous Diego Velazquez painting.

ANSWER: **Las Meninas**

[10] Most paintings of La Infanta Margarita are located in this Spanish art museum in Madrid, also home to *Las Meninas*.

ANSWER: Museo del **Prado** [or the **Prado**]

The Round is Now Over.

21. For 10 points each, name these things about cars:

[10] This 19th century anti-Semite jumpstarted American interest in cars after developing an affordable and accessible vehicle called the Model T.

ANSWER: Henry **Ford**

[10] This man used a 1933 Essex Terraplane on his 14-month bank robbing spree during the Great Depression. This "Public Enemy No. 1" was finally caught by J. Edgar Hoover with the help of the "Lady in Red".

ANSWER: John Herbert **Dillinger**

[10] The Trabant car became a cultural symbol of this state after it was mass produced. *Ostpolitik* was mostly designed to help this state, which was led by Egon Krenz and Erich Honecker.

ANSWER: **East Germany** [or **German Democratic Republic** or **GDR** or **Deutsche Demokratische Republik**; do not accept or prompt on "Germany"]