

## Brookwood Invitational Scholars Bowl XXVI: Brought to you by the letter *J'accuse*

### Round 8

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#### Tossups

1. This character is nearly buried alive to escape a convent which he immediately re-enters, posing as a gardener. He earns a fortune developing a new way to make black glass. This man goes to Arras in order to save his look-alike Champmathieu, and treasures a pair of silver candlesticks given to him by the Bishop of Myriel. He fires a shot into the air, pretending to kill a spy, but actually letting him go free, and later carries a body through the sewers. This man raises Fantine's daughter Cosette after becoming Prisoner 24601 for stealing a loaf of bread. For 10 points, name this character who is pursued by Javert, the protagonist of *Les Misérables*.

ANSWER: **Jean Valjean** [accept either name; accept Monsieur **Madeleine**]

2. An article written by Howard Morland about this technology was the subject of the 1979 court case *US vs. Progressive*. A successful run of it was nicknamed "Castle Bravo," and was based on a model developed by Stanislaw Ulam. The "Layer-Cake" model for this invention was developed by Andrei Sakharov. A successful run of this weapon was done at Christmas Island. The "father" of this weapon was Edward Teller. For 10 points, name this thermonuclear weapon which relies on the fusion of deuterium and tritium, and was developed after the USSR succeeded in making an atomic bomb.

ANSWER: **Hydrogen bomb** [prompt on "thermonuclear weapons" until mentioned; do not prompt or accept "atomic bomb" at any point; prompt on just "bomb"]

3. According to the Frenet-Serret formulas, the space derivative of the tangent equals curvature times a vector described by this adjective. All sinusoidal systems can be described as the superposition of this type of mode. Subspaces are often described by bases which are mutually orthogonal and have this property, meaning they are of length one. Taking the cross product of two vectors in a plane will yield this vector, which determines the plane's orientation. The empirical 68-95-99.5 rule applies to a distribution described by this non-eponymous adjective. For 10 points, name this adjective which describes the Gaussian distribution, or bell curve.

ANSWER: **normal** [do not accept "perpendicular"; do not accept "orthonormal"]

4. In one of this man's operas, the daughter of the Marquis of Calatrava, Leonora, loves Don Alvaro; that opera's overture opens with 3 brass unison E's. The protagonist of one of his operas sings "Ritorna vincitor." In another opera by this composer, the "Chorus of the Hebrew Slaves" is sung before the Babylonian king prays to God. This composer of *La Forza Del Destino* and *Nabucco* also wrote the aria "Libiamo ne lieti calici," a drinking song, in an opera in about Violetta, a "fallen woman." This composer is best-known for a work that ends when an Ethiopian princess is buried alive with her love Radamès. For 10 points, name this composer of *La Traviata* and *Aida*.

ANSWER: Giuseppe **Verdi**

5. The subject of Frederic Leighton's most famous painting wears a dress of this color. Dichromates are this color, which fades to green when Cr<sup>6+</sup> is reduced to Cr<sup>3+</sup>. A nonviolent revolution named after this color centered on accusations that Viktor Yanukovich's votes had been rigged, and took place in 2005 Ukraine. Theravada monks in Southeast Asia usually wear robes of this color. Infants exposed to a herbicide named after this color were born with defects after the Vietnam War. The victor of the Battle of the Boyne, William III, came from a Dutch royal house named for this color. For 10 points, give this color which names a populous county in California.

ANSWER: **orange** [accept "saffron" because of the monk clue]

6. This composer created a ballet inspired by *Nosferatu* about a sorcerer who resurrects zombies solely for his own enjoyment. Another piece by this composer of *Grohg* has its melody derived from the song "Bonyparte." The fourth movement of his third symphony is a reworking of another of his works for brass and percussion. Another of his works uses "Camptown Races" and features narration from the Gettysburg Address. This composer of "Fanfare for the Common Man" and *Lincoln Portrait* included the Shaker tune "Simple Gifts" in his most famous work, a ballet choreographed by Martha Graham. For 10 points, name this composer of *Rodeo* and *Appalachian Spring*.

ANSWER: Aaron **Copland**

7. The speaker of one of this man's poems explains "the heart must pause to breathe" as his reason for doing the title action. This member of the Satanist school had a notorious feud with Robert Southey, a Lake Poet. In a work by this poet of "We'll go no more a roving," the speaker describes a woman who had "a heart whose love is innocent" and compares her to "the night of cloudless climes and starry skies." In another poem, this author satirically portrayed the archetypal womanizer as one is easily seduced. For 10 points, name this English Romantic poet of "She Walks in Beauty" and *Don Juan* ["joo-un".]

ANSWER: George Gordon, Lord Byron [accept either underlined name]

8. After one event, these people were blasted by Alcuin in a letter addressed to Bishop Hygbald. These people hid Edmund the Martyr's head in a hedge under the command of Ivar the Boneless. They comprised the personal bodyguard of Basil II as the Varangian Guard, and regularly collected preventative tributes called the Danegeld. These people formed the Great Heathen Army after razing Lindisfarne. They explored Newfoundland under Leif Ericson using their characteristic longships. For 10 points, name these Scandinavian people who carried out devastating namesake "raids" and are erroneously depicted wearing horned helmets.

ANSWER: Vikings [prompt on "Norse" or "Norsemen" or "Scandinavians" before mention]

9. This phenomenon is not observed in a thin film if the thickness times the index of refraction is a half-integer multiple of wavelength. This phenomenon introduces "s-polarization" at an angle equal to the arctangent of the ratios of the indices of refraction, at Brewster's angle. It can be "specular" or "diffuse." Above the critical angle, the sparkle of diamonds occurs due to the "total internal" form of this phenomenon. In general, this phenomenon results in an angle symmetric to the angle of incidence, with respect to the normal. For 10 points, name this phenomenon in which light turns around when it hits an object, such as a mirror.

ANSWER: reflection [or total internal reflection]

10. Heidi Ewing and Rachel Grady directed a 2012 documentary whose title intersperses this city's name with the word "utopia". Kevyn Orr became an unelected official in this city in 2013. An ex-mayor of this city faced felony charges after he was publicly shamed by Jennifer Granholm for having an affair with Christine Beatty. Former basketball player Dave Bing succeeded Kwame Kilpatrick as mayor of this city. Governor Rick Snyder appointed financial officials to help this city, which filed for Chapter 9 in July to become the largest bankrupt US city. The "cash for clunkers" system helped its "Big Three." For 10 points, name this home of GM, Ford, and Chrysler.

ANSWER: Detroit, Michigan

11. In the Gospel of Luke, Luke uses the word "kataphileo" to describe one instance of this action. During the Hajj, a Muslim may point towards the Black Stone and recite "In the name of God, God is great" if they are unable to do this action at the Black Stone of the Kaaba. Whenever entering a room, Jews do this action to the mezuzah. The father of the Prodigal Son did this action to his son upon the son's return. In return for thirty pieces of silver, one person agreed to do this to his master in the Garden of Gethsemane. For 10 points, name this action, the ironic way in which Judas betrayed Jesus.

ANSWER: kiss [accept word forms; prompt on general answers like "touch"]

12. A painting by Oskar Kokoschka depicts a cat sitting under a table with three forks pointing towards a "red" version of these objects. A man paints a hummingbird while looking at one of these items in Rene Magritte's *Clairvoyance*. These items are being prepared in an orange bowl by an "old woman" in a Velasquez painting. In Dali's *Metamorphosis of Narcissus*, a flower emerges from one of these objects sitting in a stone hand. During the Renaissance, these items were commonly mixed with pigment to form a quickly-drying medium called tempera. For 10 points, name these objects ornately decorated by the Fabergé.

ANSWER: eggs [accept egg yolk or huevos]

13. Metallic hydrides almost always catalyze these reactions. In line notation, the species which undergoes this reaction is placed on the right. Protons undergo this reaction in a SHE cell, which sets its namesake potential equal to zero. In general, that potential is multiplied by Faraday's constant in order to determine the Gibbs free energy change of one of these reactions. In organic chemistry, they usually result in addition of hydrogen atoms and removal of oxygen atoms. These reactions occur at the cathode of voltaic cells. For 10 points, name these reactions which occur when a species gains electrons, the opposite of an oxidation.

ANSWER: reductions [prompt on "redox" or "oxidation-reduction" or "reduction-oxidation", but not "oxidation"]

14. After Paul Robeson testified to Congress that African-Americans would support the USSR during the Cold War, a man with this job testified the opposite. A person with this job gave a speech ending, "I may have had a tough break, but I have an awful lot to live for." Larry Doby, who had this job, was a subject of the "Noble Experiment" conducted by Branch Rickey. A month before he died, a man with this job said, "Today I consider myself the luckiest man on the face of the Earth." Chick Gandil, one of these people, caused a 1919 scandal that forced "Shoeless" Joe Jackson out of this job. For 10 points, name this job held by Lou Gehrig and Jackie Robinson.  
ANSWER: professional **baseball players** [or major league **baseball players**; or **MLBers**; or logical equivalents; prompt on "athletes" or "sportsmen" or similar; accept Jackie **Robinson** before "this job" is read]

15. In *The Skin of Our Teeth*, Henry Antrobus once shared his name with this person. Jose Saramago's final novel is titled for this figure. A character who represents this figure is told *Timshel* at the end of the novel in which he appears. That character sells beans during World War I and causes his mother Cathy Ames to commit suicide. Grendel and his mother are said to be descendants of this figure. Caleb Trask is the stand-in for this character, contrasting him with his brother Aron, in John Steinbeck's *East of Eden*. For 10 points, name this Biblical character who gets a namesake "mark" for killing his brother Abel.  
ANSWER: **Cain**

16. In this nation, a series of gravity-defying free-standing boulders located in the Matobo Hills is where Cecil John Rhodes was buried. Bumbusi, the site of a huge stone wall called the Great Enclosure, is located in this nation. This landlocked country is home to the Shona people. In 2009, this nation legalized the use of foreign currencies after it issued hundred trillion dollar banknotes following a period of rampant hyperinflation. The southern part of Victoria Falls is located in this nation, on its border with Zambia. This country's name comes from a "Great" civilization of Southern Africa. For 10 points, name this country which is located between Botswana and Mozambique.  
ANSWER: Republic of **Zimbabwe**

17. In order to do *this*, Incans tied black dogs up outside and starved them. In a Mayan tradition to do *this*, children lined up at the points of a compass and pretended to be frogs to appease Chaac. In Native American myth, an animal that did *this* battled with a whale and lived atop a mountain. Native Americans drove sticks into turtles' shells in order to do *this*. This was the most important function of a multi-colored serpent central to Australian aboriginal mythology. Aztecs prayed to Tlaloc in order for this to happen, and invented a stick filled with pebbles to promote it. For 10 points, name this object of "dances" by Southwestern Native Americans, in order to end droughts.  
ANSWER: bringing **rain** [or bringing **storms**; or bringing **lightning** or **thunder**; or bringing a **flood**; or **ending a drought** before mention; or **rain** dancing; or same-knowledge equivalents]

18. Hitoshi Igarashi was killed by this leader's forces. Mike Wallace asked this leader if he was crazy in a segment on *60 Minutes*, which occurred weeks after his first PM, Bazargan, resigned. At this man's state funeral, upset mourners seized the body and nearly tore it to shreds. This non-Chinese leader carried out a Cultural Revolution with his *Basij* paramilitary. The "Guardianship of the Jurist" was explained by this politician after he returned from exile in Paris for opposing the White Revolution. He was *Time* magazine's person of the year in 1979 after he oversaw a 444-day hostage crisis. For 10 points, name this Supreme Leader and Ayatollah, leader of the Iranian Revolution.  
ANSWER: Ruhollah **Khomeini** [or Ayatollah **Khomeini**; do not accept or prompt on "Khameini", and ask them to spell their answer if necessary]

19. Walter Gilbert hypothesized that this molecule was the first major step to the evolution of life. One form of this molecule consists of an acceptor stem and four stem-loops. Unlike a similar, stabler molecule, it has a 2' hydroxyl group. Sense and anti-sense versions of this molecule hybridize to this molecule in a process called interference. It is in the "middle" of the central dogma. When this molecule can catalyze its own splicing, it's called a ribozyme. Reverse transcriptase works on this molecule. One form of it is synthesized by the nucleolus. It contains uracil, not thymine. For 10 points, name this genetic material which is usually single-stranded, unlike DNA.  
ANSWER: **RNA** [or **ribonucleic acid**; or m**RNA**; or messenger **RNA**; or t**RNA** or transfer **RNA**; or r**RNA** ;or ribosomal **RNA**; or si**RNA**; or small interfering **RNA**; or various other types of RNA]

20. The second act of this play is titled “Love and Marriage”; the title of the third act is left open to the audience. One character in this play laments, “Do any human beings ever realize life while they live it?”, and when asked which day of her life she wants to relive, she goes back to see her twelfth birthday. A chorus led by Simon Stimson sings “Blessed Be The Tie That Binds” at a wedding finishing this play’s second act. The conversations of the Webb and Gibbs families are intertwined in this play, set on a stage without scenery in Grover's Corners, New Hampshire. For 10 points, name this play about George and Emily, narrated by the Stage Manager, and written by Thornton Wilder.

ANSWER: *Our Town*

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

21. In a short story titled for this period of time, a woman falls in love with a successful laundry store chain owner named Dexter Green; that story was written by F. Scott Fitzgerald. During a conflict named for this event, an ambush at Raate Road gave immense power to the Motti. Franz Schubert represents a beggar with a hurdy-gurdy in a work titled for a journey associated with this period of time. According to Norse myth, Ragnarok will be preceded by three successive periods of this event. In 1939, the Soviet Union and Finland fought a war named for it. For 10 points, name this season caused by Persephone’s return to the underworld, ushering in death, cold, and snow.

ANSWER: winter

## Round 8 Bonuses

1. Answer the following about the carbonate anion, for 10 points each:

[10] Carbonates react with acid to produce this compound and water. When limestone, or calcium carbonate, reacts with acid rain, it produces this greenhouse gas.

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

[10] The production of carbon dioxide from carbonate and bicarbonate is an important reaction in the blood, where bicarbonate and carbonic acid form one of these mixtures of a weak acid and its conjugate base.

ANSWER: buffers

[10] The resonance structures of carbonate anions show that the C-O bond in carbonate has this bond order. This is also the bond order of nitrate.

ANSWER: 4/3 [or 1 1/3; or 1.33]

2. This man was the father of Aphrodite because his genitals landed in the sea. For 10 points each:

[10] Name this primordial sky figure, the husband of Gaia and father of Cronus.

ANSWER: Oranos [or Ouranos; or Uranus]

[10] Oranos was castrated by Cronus, his son and the leader of this group. The Greek Olympians under Zeus defeated this group in a namesake war.

ANSWER: Titans

[10] This Titaness survived the Titanomachy and became Zeus' wife. However, after a prophecy that their second child would grow up to overthrow him, he swallowed her in the form of a fly, giving birth to Athena.

ANSWER: Metis

3. Answer some questions about passing or denying motions in the United States Congress, for 10 points each:

[10] Two-thirds of Congress must vote "yes" in order for the US to pass one of these into law. These agreements are signed at the end of wars to signal peace.

ANSWER: treaties

[10] The Senate's requirement to ratify treaties, as well as to vote on certain Presidential appointments, is part of this power of the Senate. This three word phrase comes directly from Section 2, Clause 2 of the *Constitution*.

ANSWER: "advice and consent" [accept "advise and consent"]

[10] A vote of 60 Senators can stop a filibuster in progress, a motion known by this name.

ANSWER: cloture

4. Sometimes, realism just isn't good enough. For 10 points each:

[10] Magic realism was a literary style pioneered mostly by Latin American authors, as well as by this British-Indian man who wrote *Midnight's Children* and *The Satanic Verses*.

ANSWER: Salman Rushdie

[10] Hysterical realism is a term often applied to this postmodernist's works. This author of *V.* wrote a novel in which Tyrone Slothrop has a unique way of predicting where V2 rockets will land.

ANSWER: Thomas Pynchon

[10] In 2012, the Nobel Prize committee praised this contemporary author's "hallucinatory realism" in works like *The Republic of Wine* and *The Red Sorghum Clan*.

ANSWER: Mo Yan

5. One of these people led a catastrophic expedition to Florida during the Narvaez expedition. For 10 points each:

[10] Identify the name given to such "conquerors" employed by the Spanish empire to find new territory. Francisco Pizarro notably had this job.

ANSWER: conquistador

[10] Sometimes, conquistadores had children with the natives. Such people with both Spanish and indigenous blood were given this name in the caste system.

ANSWER: mestizo

[10] This system of forced labor was utilized by the conquistadors, who in return were supposed to teach the natives about the Christian faith. However, this system was often abused to rob the natives of their land.

ANSWER: encomienda

6. Chobani was founded by a member of this ethnic minority. For 10 points each:

[10] Name this ethnic group, many of whom have fled to Turkey to escape Syrian and Iraqi persecution.

ANSWER: Kurds [or Kurdish people]

[10] Unlike many other Muslims, Kurdish women do not wear this article of clothing in the presence of other non-relative men. This object, also called a *hijab*, was banned in France in 2011. It is less extensive than a *burqa*.

ANSWER: face veil

[10] This other Islamic minority in Syria stands to be heavily repressed if the rebels win the civil war, as Assad and his ruling administration are members of it. This group is Shi'ite and was founded in the eighth century.

ANSWER: Alawites [or Alawis]

7. When these substances have more than twenty-two carbons, they must be oxidized in the peroxisome. For 10 points each:

[10] Name these long hydrocarbon chains ending in a carboxylic acid. Three of them are attached to glycerol to form a triglyceride.

ANSWER: fatty acids

[10] These fats contain fatty acids with carbon-carbon double bonds. These fats often are liquid at room temperature, and are healthier than their counterparts.

ANSWER: unsaturated fats [or monounsaturated fats; or polyunsaturated fats; or trans fats; or cis fats]

[10] In addition to oxidizing fatty acids, the peroxisome contains this enzyme, which breaks down hydrogen peroxide into oxygen and hydrogen gas. It is one of the fastest enzymes known.

ANSWER: catalase

8. The protagonist first thinks about this question when he's talking to his old history teacher Mr. Spencer. For 10 points each:

[10] Identify this question. When Holden asks this question to a cab driver named Horwitz, Horwitz gets angry at him.

ANSWER: Where do the Central Park ducks go in the winter? [or same-knowledge equivalents involving ducks and winter]

[10] Holden Caulfield appears in this novel by JD Salinger.

ANSWER: The Catcher in the Rye

[10] Another symbol in *The Catcher in the Rye* is one of these objects which belonged to Holden's brother Allie. It was inscribed with poems, and Holden writes an essay about it for Stradlater.

ANSWER: Allie's baseball mitt [or baseball glove; or same-knowledge equivalents]

9. One of this artist's stained glass works is dedicated to former UN Secretary General, Dag Hammarskjöld. For 10 points each:

[10] Name this artist who painted the Parisian landscape behind himself in a *Self-Portrait with Seven Fingers*. A man with a scythe and an upside-down house appear in his most famous work.

ANSWER: Marc Chagall

[10] In this most famous Chagall painting, a small tree appears between a large green-faced man and a white sheep.

ANSWER: I and the Village

[10] A white angel holding a purple sword appears in Chagall's depiction of this scene. In Masaccio's depiction of this scene, a red angel holding a sword flies over the central figures.

ANSWER: Adam and Eve's expulsion from the Garden of Eden [accept similar answers]

10. The revolt of the va-nu-pieds, or the "barefooted ones", began because of a tax on this commodity. For 10 points each:

[10] Name this commodity which was taxed by the gabelle. It is vital to the preservation of food.

ANSWER: salt

[10] The gabelle tax prompting the revolt of the va-nu-pieds was instituted by this king, the son of Henry IV. During his tension-filled reign, the royal forces besieged the Huguenot fort of La Rochelle.

ANSWER: Louis XIII

[10] Louis XIII had his mother Marie d'Medici exiled during the "Day of the Dupes", which directly benefited this ally of Louis.

ANSWER: Cardinal Richelieu [or Armand Jean du Plessis]

11. The Towers of Hanoi and Fibonacci sequence are easily solved using this approach. For 10 points each:

[10] Name this process in which a function calls itself repeatedly to get to the answer. That contrasts it with iteration.

ANSWER: recursion [or word forms]

[10] In most languages, recursion is implemented with the “call” type of this data structure. This structure removes data “first-in, last-out”.

ANSWER: stack [or call stack]

[10] Another recursive algorithm implementing a stack is the “depth-first” type of this algorithm, which is used to traverse trees and graphs.

ANSWER: searching [or depth-first search]

12. This man said, “...They always get away!” to a police dispatcher in Sanford, Florida. For 10 points each:

[10] Name this man who was acquitted in July 2013 for killing Trayvon Martin.

ANSWER: George Zimmerman

[10] Zimmerman’s defense argued that he was acting within his rights under Florida’s version of this law, which permits a person to use deadly force without being obligated to first retreat.

ANSWER: “stand your ground” laws

[10] The primary witness for the prosecution was this friend of Martin’s who was on the phone with him when the attack happened. The prosecution suffered a blow when she was unable to read a letter she wrote in cursive.

ANSWER: Rachel Jeantel [or Witness 8]

13. The subject of this ode is the “beautiful spark of Gods/Daughter of Elysium.” For 10 points each:

[10] Name this ode which Beethoven set as the text for the fourth movement of his Ninth Symphony.

ANSWER: “Ode to Joy” [or “Ode an die Freude”]

[10] This German poet wrote the “Ode to Joy”, as well as the plays *The Robbers* and *Mary Stuart*.

ANSWER: Johann Christoph Friedrich von Schiller

[10] Schiller’s most performed play during his lifetime was about this historical figure. Bertolt Brecht wrote a play about this woman “of the Stockyards”.

ANSWER: Joan of Arc [or Jeanne d’Arc; or Saint Joan; or *The Maid of Orleans*]

14. Søren Kierkegaard wrote a noteworthy criticism of this argument. For 10 points each:

[10] Name this phrase written originally in Latin that represents a truth about one’s existence. This three-word phrase appears in its author’s *Discourse on the Method*.

ANSWER: Cogito ergo sum [or “I think, therefore I am”; or the Cogito argument]

[10] *Cogito ergo sum* was coined by this philosopher in his *Meditations on First Philosophy*.

ANSWER: René Descartes

[10] In *Meditations on First Philosophy*, Descartes furthers his definition of what a thinking person is with this object. Descartes notes that the color, texture and shape of *this* can change and still be the same substance.

ANSWER: a piece of wax

15. Name these composers who wrote operas about tsars, for 10 points each:

[10] This composer told of *The Tsar’s Bride* in one opera. In this composer’s opera *The Tale of Tsar Sultan*, the flute plays running sixteenth notes in the interlude “The Flight of the Bumblebee.”

ANSWER: Nikolai Rimsky-Korsakov

[10] This composer portrayed a famous “Coronation Scene” in an opera about a tsar during the Time of Troubles, *Boris Godunov*.

ANSWER: Modest Mussorgsky

[10] This composer of *Ruslan and Lyudmila* explored the backstory of the selection of Mikhail Romanov as tsar in his opera *A Life for the Tsar*.

ANSWER: Mikhail Glinka

16. Actor Paul Newman said being included on this document was his life's greatest achievement. For 10 points each:

[10] Name this list of critics started by Charles Colson and published in 1973. It was used by John Dean III while he was testifying in court, and was first started to "screw" someone's political rivals.

ANSWER: Richard **Nixon's enemies list** [prompt on "the enemies list" or similar; they need Nixon]

[10] Nixon's enemy list was uncovered during the investigations of this scandal, which began after a break-in at the namesake hotel.

ANSWER: **Watergate** Scandal

[10] Nixon won a landslide against this South Dakota senator in 1972. During that election, this man announced he was "1000 percent" behind running mate Thomas Eagleton after the latter received electroshock therapy.

ANSWER: George **McGovern**

17. Answer the following about the Large Hadron Collider, for 10 points each:

[10] On July 4, 2012, physicists at the Large Hadron Collider announced the isolation of this "God" particle, named for its discoverer, which gives other particles mass.

ANSWER: **Higgs** boson

[10] The Higgs boson was the clincher for this model of particle physics, which also was used to predict the existence of the bottom and top quarks.

ANSWER: **Standard Model**

[10] Physicists are also hoping to identify dark matter at the LHC, probably in the form of these particles. These particles would not be composed of baryons, unlike MACHOs.

ANSWER: **WIMPs** [or **weakly interacting massive particles**]

18. The speaker of this work has "no doubt that it will equally serve in a fricasee or a ragout." For 10 points each:

[10] Name this essay which proposes the obvious solution to a famine in Ireland: eating children!

ANSWER: "A **Modest Proposal** For Preventing The Children of Poor People in Ireland From Being A Burden to Their Parents or Country, and For Making Them Beneficial to The Public"

[10] This satirist concocted a scheme for eating children in "A Modest Proposal", but he may be better-known for writing *Gulliver's Travels*.

ANSWER: Jonathan **Swift**

[10] A crater on Mars is named for Swift because, when Gulliver visits this island, the inhabitants mention the two moons of Mars that nobody on Earth had actually yet discovered. The genius inhabitants of this land can levitate.

ANSWER: **Laputa**

19. Most people would probably agree with this composer's quote that his music is "not lovely." For 10 points each:

[10] Name this Austrian developer of the twelve-tone system, a pioneer in atonality.

ANSWER: Arnold **Schoenberg**

[10] Schoenberg composed an unfinished opera about this man and his brother Aron. That opera's source material is the Book of Exodus.

ANSWER: **Moses** [accept **Moses und Aron** or **Moses and Aaron**]

[10] This Schoenberg work for string sextet is named for a Richard Dehmel poem of the same name. This piece is a prime example of Schoenberg's chromaticisms and was composed before he developed the twelve-tone row.

ANSWER: **Verklärte Nacht** [or **Transfigured Night**]

20. Nikolai Bukharin was forced to watch sixteen criminals be executed during the Trial of the Twenty One under this man's government. For 10 points each:

[10] Name this leader of the Soviet Union who had his dissidents killed during the Great Purge. He succeeded Vladimir Lenin.

ANSWER: Joseph **Stalin** [or Ioseb Besarionis je **Juġašvili**]

[10] Stalin introduced these economic "plans" to give the state total control of industry. They let the state decide what, when, and where materials would be used for production.

ANSWER: **Five-Year** Plans

[10] This name was given to the wealthy farmers who refused to give their land to the state during the Five-Year Plans. Under the Stalin regime, most of them were sent to the gulags.

ANSWER: **Kulaks**



**The Round is Now Over.**

21. Answer the following about surfactants, for 10 points each:

[10] Surfactants act by lowering this quantity for a solution. It's defined by the Gibbs free energy per unit area and is the reason that water striders can walk on water.

ANSWER: surface tension [or surface energy]

[10] Pulmonary surfactant is secreted by these structures in humans. These small sacs are the site of gas exchange in humans.

ANSWER: alveoli [or alveolus]

[10] In solution, surfactants at low concentrations often form these spherical aggregates due to their amphipathic behavior. These structures form in addition to liposomes and bilayers.

ANSWER: micelles