2016 NSC - Official Scoresheet

| Round | 01 | Room |  |
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| Bracket |  |  |  |
| Reader |  |  |  |



Circle winning team above. Clearly mark if game goes to OT/ SD. Fill out "Point totals" row completely. If there are substitutions, please note tossups by each player in " 20 s " and " 10 s " rows. Below is for Tab Room use only:

| RH | RS | BH | BS | Left | Right | BH | BS | RH |
| ---: | ---: | ---: | ---: | ---: | :--- | ---: | ---: | ---: | RS | R |
| :--- |

National Scholastic Championship

## PACE NSC 2016 - Round 01- Tossups

1. In a film by this director, the protagonist hires a sharpshooter named Nikki to shoot a horse during a race. That film by this director ends with J ohnny Clay asking "What's the difference?" after the backdraft from a plane's propeller blows away 2 million dollars he had just stolen. This director abandoned the score he commissioned from Alex North for a film which plays György Ligeti's Atmospheres and Lux Aeterna at certain points. That film by this director of The (*) Killing features a match cut in which a bone used by apes transitions into a nuclear weapons platform, and it ends with a man transforming into a fetus after reaching at a black monolith. For 10 points, name this director who featured the sentient computer Hal 9000 in his movie 2001: A Space Odyssey.
ANSWER: Stanley Kubrick <J ose>
2. During this man's political exile, he worked in a tractor factory, and his son was paralyzed by being thrown from a window. This man proposed the policy of "One Country, Two Systems." He was labeled the "second biggest capitalist roader" after Liu Shaoqi. In suggesting the abolition of the people's communes, this leader stated that "it doesn't matter if the cat is black or white, as long as it catches the mice." With Zhao Ziyang and Hu Yaobang, this man outmaneuvered (*) Hua Guofeng for power. He set up the Special Economic Zones and promoted "socialism with Chinese characteristics." This "paramount leader" ordered the suppression of the protests at Tiananmen Square. For 10 points, name this Chinese leader who presided over China's 1980s economic revolution.
ANSWER: Deng Xiaoping [or Teng Hsiao-p'ing] <Bentley>
3. This scientist names a type of idealized object derived by solving the Helmholtz equation under the paraxial approximation. One over 4 pi times the vacuum permittivity equals 1 in the system of non-SI units named for this scientist, which are based off of CGS rather than MKS units. This scientist names a statement used to prove the shell theorem in electrostatics. This scientist names an imaginary (*) surface whose normal vector is parallel to a vector field, allowing for calculation of flux without performing an integral. Magnetic monopoles are forbidden by one of his laws, while his other law equates the electric flux to the enclosed charge divided by the vacuum permittivity. For 10 points, name this German mathematician who names the normal distribution.
ANSWER: Carl Friedrich Gauss <Busse>
4. Characters created by an author of this ethnicity include Darius, who claims that fat clouds are God, and Alicia, whose father claims the mice she sees are imaginary. In another novel, a character of this ethnicity learns about a god who became a golden carp and later buries his mentor's magical owl. A character of this ethnicity is offered a dollar for a kiss by a "bum man" while walking around in high heels, then is abandoned by (*) Sally and raped at a carnival. The author of Bless Me, Ultima shares this ethnicity with the author of a novel consisting of poem-like vignettes about Esperanza, who lives in The House on Mango Street. For 10 points, identify this ethnicity of Rudolfo Anaya and Sandra Cisneros, two authors of Chicano literature.
ANSWER: Mexican-American [or Chicano or Chicana until "Chicano" is read; prompt on Latino, Latina, or Hispanic] <Brownstein>
5. A bizarre book by Immanuel Velikovsky identifies this mythical figure with the pharaoh Akhenaten. This grandson of Labdacus was raised by the king and queen of Corinth, Polybus and Merope, after a servant gave him to a shepherd. Theseus allows this man to spend his final days in a grove sacred to the Furies at Colonus. As an infant, he was supposed to be abandoned on Mount Cithaeron with his ankles pierced and tied together, which is why his name means (*) "swollen foot". Earlier, he exiled the prophet Tiresias as punishment for revealing that he was the killer of Laius. This man became king of Thebes by solving the riddle of the Sphinx. For 10 points, name this man who blinded himself after realizing that his wife J ocasta was his own mother.
ANSWER: Oedipus $<\mathrm{J}$ ose $>$
6. Hugh MacDiarmid wrote "another" version of this author's epitaph for mercenaries who fought on "the day when heaven was falling." A poem by this author describes a "king who reigned in the East" whose enemies "poured strychnine in his cup." One of this poet's speakers replies "Malt does more than Milton can to justify God's ways to man" to critics complaining that his verse "gives a chap the belly-ache." In one of his poems, the speaker remembers being (*) advised to "give crowns and pounds and guineas, but not your heart away" when he was "one and twenty." A poem by this author of "Terence, This is Stupid Stuff" recalls a time the addressee "won [his] town the race." For 10 points, name this poet who collected "To an Athlete Dying Young" in A Shropshire Lad.
ANSWER: A. E. Housman [or Alfred Edward Housman] <Brownstein>
7. This man grounded his classification of human knowledge in a tripartite division of reason, memory, and imagination. This man wrote a work in which the governor of the House of Strangers tells a tale about a hierophanic pillar of light arising from the ocean, which the people of Renfusa sail toward. This author of The Advancement of Learning identified the biases of individuals as the (*) "idols of the cave" in a book that proposes a method of inductive reasoning. This author described an ideal college called Salomon's House in a work about the legendary island of Bensalem, The New Atlantis. For 10 points, name this early English philosopher who wrote the Novum Organum, and is often held to be the father of the scientific method.
ANSWER: Francis Bacon $<J$ ose $>$
8. This man first made a name for himself by editing a book on the Asbestos Strike of 1949 which was sharply critical of the Duplessis government. This politician's successor dismantled his unpopular National Energy Program. This man defended a criminal code which decriminalized consensual homosexual acts by stating "there's no place for the state in the bedrooms of the nation." This man's government passed the Official Languages Act and pushed for a Charter of (*) Rights and Freedoms during the patriation of his country's constitution away from British authority. This prime minister enacted the War Measures Act to deal with the FLQ during the 1970 October Crisis. For 10 points, name this Canadian prime minister, the father of the country's current prime minister.
ANSWER: Pierre Trudeau [or J oseph Philippe Pierre Yves Elliott Trudeau] <Bentley>
9. Note: all abbreviations are spelled out. LAL, an extract from horseshoe crabs, undergoes this process in response to bacterial endotoxins. The APTT and the international normalized ratio are used to test the intrinsic and extrinsic pathways of this process. Hirudin inhibits this process, whose more important form begins when tissue factor binds with Factor (*) VIIa (seven-A). Sex-linked Factor VIII (eight) deficiency causes the most common form of a disorder that disrupts this process. During this process, which is suppressed by heparin and warfarin, thrombin converts fibrinogens to fibrin molecules before they are cross-linked together at the site of platelet formation. For 10 points, name this process impaired in hemophilia, in which blood turns from a liquid to a gel, often stopping blood loss.
ANSWER: blood clotting [or blood coagulation] <Kothari>
10. Louis Leon Thurstone identified seven PMAs surrounding this concept and was the first to apply factor analysis to study it. Linda Gottfredson drafted a Wall Street J ournal op-ed about "Mainstream Science on" this concept, which is the subject of a "triarchic theory" by Robert Sternberg. Howard Gardner identified body-kinesthetic, intrapersonal, and naturalistic among the (*) "multiple" types of these factors. Charles Spearman coined the term $g$ factor to denote a generalized measure of this concept. The rise in measures of this concept over time is called the Flynn Effect. Various tests of this concept include Raven's Progressive Matrices and the Stanford-Binet test. For 10 points, name this concept, the cognitive ability to process information and solve problems.
ANSWER: intelligence [or intelligence quotient or IQ] $<$ J ose $>$
11. This composer used an English horn solo over muted strings to begin the Romanza third movement of his Symphony No. 5. An intermezzo is surrounded by two marches in a suite by this composer that quotes tunes such as "Seventeen Come Sunday." He wrote an overture to Aristophanes's play The Wasps and used a harp to imitate the Westminster chimes in his second symphony. This composer called for a string quartet, a chamber string orchestra, and a full-size string orchestra in a piece based on the (*) Renaissance melody "Why fum'th in fight." A soaring violin solo depicts the upward motion of the title bird in a piece by this man based on George Meredith's poem The Lark Ascending. For 10 points, name this composer of fantasias on "Greensleeves" and a theme of Thomas Tallis.
ANSWER: Ralph Vaughan Williams (rayf vawn "williams") [prompt on Williams] <Kim>
12. Due to public scrutiny, this act was reversed a week after it happened to Sri Lankan author Tissa Balasuriya. Though this process can occur immediately or latae sententiae, Canon 1425 states that it usually is administered ferendae sententiae by a panel of three judges. It is often said that an interdict is a form of this process applied to a whole polity. This act draws from Matthew 18, which says to treat those who (*) ignore the church as "a Gentile and a tax-gatherer." This act was used as a threat in Leo X's bull Exsurge Domine, and may occur if one violates the "sacred species" by desecrating a consecrated host, or commits other grave sins. For 10 points, name this process in which the Catholic Church bans an individual from receiving the sacraments.
ANSWER: excommunication <J ose>
13. An ammonium and sulfate salt of this metal named for Mohr is frequently used in titrations. The first attempted synthesis of fulvalene accidentally created a molecule with an atom of this metal at its center. An enzyme in the Krebs cycle named aconitase has a catalytic center with atoms of this metal and (*) sulfur arranged in a cube. The first synthesized metallocene contained an atom of this metal at its center. This is the lightest element that cannot be used in stellar fusion without a cost in energy, or a supernova will occur. The mineral pyrite contains two sulfur atoms and an atom of this metal, and is commonly referred to as fool's gold. For 10 points, identify this metal found in ferrocene, whose oxide is rust.
ANSWER: iron [or Fe] <Prieto>
14. A leading far-right figure in this country has championed an apocalyptic war to remake its continent in books like Foundations of Geopolitics and The Fourth Political Theory. The lead singer of this country's oldest rock band, Time Machine, was sanctioned in 2014 for supporting "fascism." This home of VTB Bank has been heavily criticized by the former head of (*) Yukos from his exile in Switzerland. This country funds foreign militias like the Sparta Brigade and Rapid Response Team Batman in the Donbass region of a neighboring country, where Euromaidan protesters decried its influence on Viktor Yanukovych. For 10 points, identify this country that annexed Crimea from Ukraine, led by Vladimir Putin.
ANSWER: Russia [or Russian Federation] <Ray>
15. A character with this profession has his car pulled out of a ravine by Sonny's mule. Another character with this job tells the story of a popular man who died in his "green velvet slippers" on a train-ride as an example of a person who was "well liked," not just "liked." R. J. Bowman, a man of this profession, dies of a heart attack at the end of a Eudora Welty story. Flute music heralds scenes in which a person with this job imagines talking to a man who got rich in (*) Africa, his brother Ben. That character with this job angers his son by having an affair with The Woman in Boston and crashes his car to provide life insurance money for Linda, Biff, and Happy. For 10 points, name this profession practiced by Willy Loman in an Arthur Miller play about his death.
ANSWER: a salesman [or a travelling salesman; or a shoe salesman] <Brownstein>
16. In 1961, this country received a diplomatic note calling for military consultations on defense against "Germany and her allies," as per the FCMA Treaty. The German-trained Jaegers made up the White Guards during this country's civil war. Yelena Bonner founded a watch group to monitor compliance with Article VII of an agreement signed in this country, which called for "respect for human rights." During one war, this country's troops coined the term (*) "Molotov cocktail" and used cross-country skis to fight a larger enemy force. This country used the Mannerheim line during that war, which was followed by the Continuation War. This country ceded Karelia after losing the Winter War to the Soviets. For 10 points, name this country where the Helsinki Accords were signed.
ANSWER: Finland [or Suomi] <Brownstein>
17. The Voronoi diagram of the carbon atoms in diamond consists of truncated versions of the "Triakis" kind of this shape. Adding a vertex that is equidistant to the vertices that comprises this shape creates the pentachoron, since five examples of this shape make up a five-cell. The area of the faces that comprise this shape is the subject of De Gua's theorem. Tartaglia's formula gives the volume of this shape in terms of its dihedral angles. The first four numbers that define this shape's figurate sequence are "1, 4, 10, 20." The (*) Schläfli symbol of this shape is 3 comma 3 . The central angle between two of this shape's vertices is approximately 109 degrees. Of the Platonic solids, it is the only self-dual one since at every vertex, three triangles meet. For 10 points, name this regular polyhedron with six edges and four faces.
ANSWER: tetrahedron <J ose>
18. In this novel, some office workers can't stop singing after they are hypnotized by a pince-nez-wearing "choirmaster." A subplot of this novel ends with a headache-stricken man revealing to Levi that he had stabbed a traitorous character. In this novel, a servant turns her neighbor into a pig after putting on some magical cream, then flies to Apartment No. 50 for a party on (*) Walpurgis Night. In this novel's first chapter, a streetcar decapitates a chairman of MASSOLIT named Berlioz. In this novel, the pistol-toting cat Behemoth is part of the retinue of Professor Woland, who restores a manuscript about Pontius Pilate written by the first title character. For 10 points, name this novel in which the devil visits Moscow, a work titled for an author and his lover by Mikhail Bulgakov.
ANSWER: The Master and Margarita [or Master i Margarita] <Brownstein>
19. A painting titled for this artist's most famous subject "and Alvaro" depicts a blue door behind some washbuckets. This artist painted a boy in oversized military wear running through a withered winter field. A nude with blonde braids sits next to an open window in this artist's Lovers. This artist's work entered a melancholy period after a train accident killed his father, the creator of notable (*) illustrations of Treasure Island. Recurring subjects for this artist included the Kuerner family of Chadds Ford and his neighbor Helga Testorf. A painting by this artist set in Cushing, Maine depicts the Olson family farm in the top right corner and centers on a paralyzed girl wearing a pink dress and lying in the grass. For 10 points, name this painter of Christina's World.
ANSWER: Andrew Wyeth [or Andrew Newell Wyeth] <Brownstein>
20. This assembly voted to have one of its members author the "May 15 Preamble" to explain the importance of one of its documents. For two months, this government met at a tavern called the Henry Fite House. This body appointed the Committee of Five to prepare a document that would publicize the Lee Resolution. A letter sent to a member of this body notes that "all men would be tyrants if they could" and urged this body to (*) "Remember the Ladies." J ohn Dickinson led this convention in writing and sending the Olive Branch Petition. This body dissolved itself when its members signed the Articles of Confederation in 1781. For 10 points, name this ruling body that adopted the United States Declaration of Independence and governed for much of the American Revolution.
ANSWER: Second Continental Congress [prompt on Continental Congress] <J ose>
21. These things partly title a Makoto Shinkai film in which a student's rainy encounters with a mysterious woman in a garden at Shinjuku Gyoen help the latter regain her selfconfidence. Three chimpanzees named Kafka, Milton, and Swift appear in a David Ives play whose title repeats the name of these things three times. Hapax legomenon is the name for one of these things that only appear once in a given sample. When Polonius asks Hamlet "What do you read my lord?", Hamlet only (*) repeats this word three times. The Gospel of J ohn opens by stating "In the beginning was [this]," and notes that it "was God." A portmanteau is one of these that has been formed from combining two different ones. For 10 points, name these linguistic units, which are sometimes "loaned" from other languages.
ANSWER: words [accept The Garden of Words; Words, Words, Words; In the Beginning was the word; portmanteau words; or loanwords] <J ose>
22. Louise Day Hicks organized a campaign against this policy in the 1960s and 70s. For 10 points each: [10] Identify this method of desegregating schools. The Supreme Court upheld a North Carolina county's plan to use this policy in the case of Swann v. Charlotte-Mecklenburg Board of Education. ANSWER: compulsory busing [or desegregation busing; or forced busing]
[10] Hicks led opposition to busing in this New England city. An African-American named Crispus Attucks died during a 1770 "massacre" in this city.
ANSWER: Boston
[10] A famous photo from the Boston busing crisis shows J oseph Rakes using one of these objects as a weapon against Ted Landsmark. Michael Strank, Franklin Sousley, and Harlon Block were killed shortly after being immortalized in a 1945J oe Rosenthal photograph that features one of these objects.
ANSWER: an American flag [or a flagpole] <Bentley>
23. Answer the following about beds in classical mythology, for 10 points each.
[10] This villain captured travelers and strapped them to his iron bed, either stretching them out or chopping off parts until they fit exactly. Eventually, Theseus forced him to experience the bed himself. ANSWER: Procrustes [or Prokoptas; or Damastes]
[10] After Helios informed him of his wife's adultery, this god of the forge created a bronze net and attached it to his bed, which he used to catch his wife Aphrodite and Ares in the act of lovemaking.
ANSWER: Hephaestus [or Vulcan]
[10] After Penelope orders this nurse to move her bed, Odysseus describes how the bed was carved from an olive tree to convince Penelope of his identity. Earlier, this woman recognized the disguised Odysseus from an old scar right above his knee.
ANSWER: Eurycleia <J ose>
24. The protagonist of this work flees a dungeon to a coconut-palm forest, but is pursued by the Tyrant, who then whips her. For 10 points each:
[10] Name this ballet about the poor peasant Wu Qinghua, who is eventually given shelter by the title group of people. At the end of this ballet, the Tyrant's granaries are opened for public use.

## ANSWER: The Red Detachment of Women

[10] A performance of The Red Detachment of Women takes place in Act 2 of this opera, which contains arias such as "This is prophetic" and "Mr. Premier, distinguished guests, I have attended many feasts..."
ANSWER: Nixon in China
[10] Nixon in China was composed by this American. J ustin Davidson wrote a defense of this man's opera The Death of Klinghoffer, denying that it was anti-Semitic.
ANSWER: J ohn Adams [or J ohn Coolidge Adams] <Bentley>
4. One resident of this town, Aunt Leonie, is an elderly invalid who receives regular visits from Eulalie. For 10 points each:
[10] Identify this provincial town which the narrator starts to remember after eating a tea-soaked madeleine. At a wedding, the narrator finally gets to see the Guermantes, the nobility of this town.

## ANSWER: Combray

[10] In Combray, a path known as this man's "way" is the main alternative to one that passes by the Guermantes. This character is the father of Gilberte, the narrator's Parisian playmate, and made a bad marriage to Odette de Crecy.
ANSWER: Charles Swann [or Charles Swann]
[10] Charles Swann is the title character of Swann's Way, the first part of this French author's lengthy novel In Search of Lost Time.
ANSWER: Marcel Proust [or Valentin Louis Georges Eugène Marcel Proust] <Bentley>
5. Sufferers of PKU lack the enzyme that hydroxylates phenylalanine to form this other amino acid.

For 10 points each:
[10] Name this aromatic amino acid whose side chain consists of a phenol group.
ANSWER: tyrosine [or $\underline{\mathbf{Y}}$; or Tyr]
[10] Oxidative polymerization of tyrosine by an enzyme called tyrosinase forms this pigment, which is produced in the skin in response to UV radiation.
ANSWER: melanin [or cumelanin; or pheomelanin]
[10] The substantia nigra in the midbrain is named because it has many melanin-containing neurons that produce this compound. This compound is biosynthesized by decarboxylating a derivative of tyrosine.
ANSWER: dopamine <Zhang>
6. The so-called "Trojans" can be found on the L4 and L5 components of these systems that exist between the Earth and the Sun. For 10 points each:
[10] Name these locations, where a small object can stay between two orbiting bodies.
ANSWER: Lagrange points [or Lagrangian points or libration points; prompt on $\underline{L}$ points] [10] The L3 Earth-Sun Lagrange point is an ideal place to put a spacecraft to detect these large bodies that may cause catastrophic damage if they hit Earth. Vesta and Ceres are two of the largest ones.
ANSWER: asteroids
[10] Lagrange points define this hypothetical "superhighway," which provides a low energy-cost method for objects to move about the Solar System, even though its transport would take a long time. ANSWER: Interplanetary Transport Network <J ose>
7. This painting includes an inscription that indicates that its artist was 82 when it was produced. For 10 points each:
[10] Name this circular painting influenced by Orientalism, which shows several nude women resting in the title facility.
ANSWER: The Turkish Bath [or Le Bain Turc]
[10] This Neoclassical painter of The Valpinçon Bather and The Turkish Bath depicted a reclining woman with too many vertebrae in The Grande Odalisque.
ANSWER: J ean-Auguste-Dominique Ingres (AHN-gruh)
[10] This later French painter included trees slanting toward the center of the canvas in his Large Bathers. This artist, whose still-lifes often included skulls and apples, painted several views of Mont Sainte-Victoire.
ANSWER: Paul Cézanne <Golimlim>
8. A 1963 crisis in this region developed after a strand of the Prophet Mohammad's hair was stolen from a shrine in Hazratbal. For 10 points each:
[10] Identify this region claimed by both India and Pakistan on opposite sides of the Line of Control. It should not be confused with Punjab.

## ANSWER: Kashmir

[10] The hair relic was installed in the Hazratbal shrine by this Mughal emperor. This man imprisoned his father Shah J ahan after defeating his brother Dara Shikoh in a civil war.
ANSWER: Aurangzeb [or Aurangzib or Awrangzib or Alamgir of Muhi al-Din Muhammad]
[10] Some people of this ethnicity settled in Kashmir colonies such as Dranghaihama. The Durrani are a subgroup of this ethnic group, many of whom live in Pakistan's North-West Frontier Province. ANSWER: Pashtuns [or Pushtuns or Pakhtun or Pathan; prompt on Afghan] <Bentley>
9. In order to see if she's still alive, this character's father asks for a "looking-glass" to see if her "breath will mist or stain the stone." For 10 points each:
[10] Name this character, whose death causes her father to shout "Never! Never! Never! Never! Never!" and state "Look on her, look, her lips," before he too also dies.
ANSWER: Cordelia
[10] Cordelia is the daughter of this Shakespearean king, who is tricked by his unfaithful daughters Goneril and Regan into dividing up his kingdom between them.
ANSWER: King Lear
[10] Cordelia's execution is ordered by this illegitimate son of Gloucester, the villain of the play, who plots against his older brother Edgar and questions "Why bastard? Wherefore base?" in a famous speech.
ANSWER: Edmund <J ose>
10. Lake Otsego is the source of this river, the longest river on the East Coast to empty into the Atlantic. For 10 points each:
[10] Name this home to Three Mile Island, a river that flows through New York, Pennsylvania, and Maryland. Its name comes from a Len'api word meaning "River of Oysters."
ANSWER: Susquehanna River
[10] The Susquehanna River flows into this estuary at Havre de Grace (HAvE-er duh GrACE), Maryland, the largest bay in the U.S.
ANSWER: Chesapeake Bay
[10] In 1972, Hurricane Agnes caused major flooding of the Susquehanna centered around this city. Located near Scranton, it was named in part to honor the coiner of the term "Sons of Liberty." ANSWER: Wilkes-Barre, Pennsylvania <J ose>
11. This author described how a force shouted "Thalatt! Thalatta," meaning "The Sea! The Sea," as they reached the shore of the Black Sea. For 10 points each:
[10] Name this Greek historian who was one of the leaders of a group of mercenaries called the Ten Thousand. Their march north is discussed in this author's Anabasis.
ANSWER: Xenophon of Athens
[10] Xenophon also wrote a fictionalized biography of this king, who conquered the Median Empire, Babylonia, and Lydia to found the Persian Achaemenid Empire.
ANSWER: Cyrus the Great [or Cyrus II; or Cyrus the Elder; or Kurosh; prompt on Cyrus] [10] The Ten Thousand were originally hired to fight for Cyrus the Younger against his brother Artaxerxes II. Cyrus the Younger died in this battle when his forces were betrayed by Tissaphernes. ANSWER: Battle of Cunaxa <J ose>
12. This author's stories often feature long titles like "A Train Is an Order of Occurrence Designed to Lead to Some Result." For 10 points each:
[10] Name this author of the collection The Lone Ranger and Tonto Fistfight in Heaven and the novel The Absolutely True Diary of a Part-Time Indian.
ANSWER: Sherman Alexie
[10] Alexie's first novel follows a group of Spokane blues musicians from one of these areas, which also provide the settings of other novels like House Made of Dawn and Ceremony.
ANSWER: Indian reservations
[10] This sport, an extremely fast-paced style of which is popular on reservations, features in Alexie's poem "Defending Walt Whitman." In a J ohn Irving novel, Owen Meany's skills in this sport save some children from a grenade.
ANSWER: basketball [prompt on rezball] <Brownstein>
13. This process occurs radially in deuterostomes like vertebrates and echinoderms. For 10 points each:
[10] Name this embryonic developmental process of several rapid cell divisions in the absence of cell growth. During it, the zygote turns into the morula, then the blastula.
ANSWER: embryonic cleavage
[10] In humans, embryonic cleavage partitions the blastula into two poles: one yolk-rich and one yolkpoor, the latter eventually forming the germ layers. Name both poles.
ANSWER: vegetal pole and the animal pole [prompt on partial answer; either order acceptable] [10] Human embryos undergo holoblastic cleavage, in which very little yolk is left in the egg. That's because human embryos are nourished by this organ, which connects the developing fetus to the mother's uterus.
ANSWER: placenta <Silverman>
14. Philip Zimbardo tested this theory by placing an automobile without a license plate in the middle of Palo Alto, California. For 10 points each:
[10] Name this theory described in an article by J ames Wilson and George Kelling. It argues that reducing the rate of smaller crimes in urban areas will reduce the rate of bigger crimes.
ANSWER: broken windows theory
[10] Broken windows theory argues that more serious crimes will be curbed by reducing this specific criminal act of damaging property, which includes things like graffiti.
ANSWER: vandalism [or word forms]
[10] In his book The Tipping Point, this author argues that the use of broken windows theory in New York City has reduced crime. His latest book is David and Goliath.
ANSWER: Malcolm Gladwell <J ose>
15. Name some things about J ohn the Baptist, for 10 points each:
[10] J ohn the Baptist baptized J esus in this river. In Second Kings, Naaman the leper was healed by bathing seven times in this river.
ANSWER: Jordan River
[10] Matthew and Mark claim that J ohn the Baptist wore clothes made from the hair of this animal. The Synoptic Gospels record J esus saying that it is easier for these animals to pass through a needle's eye than for a rich man to enter heaven.
ANSWER: camel
[10] J ohn the Baptist was beheaded after this mother of Salome urged her to ask Herod for J ohn's head as a reward for dancing.
ANSWER: Herodias <Reinstein>
16. The vector type of this concept is often used to model action-at-a-distance by assigning a vector quantity to each point in space. For 10 points each:
[10] Name this concept that can be represented by lines showing the direction that a force would move a particle in.
ANSWER: vector field
[10] This adjective is used to describe a vector field that equals the gradient of a potential function.
The work done by such a field is path-independent.
ANSWER: conservative vector field
[10] This operation gives the zero vector in any conservative vector field. This operation is equivalent to the del operator crossed with the field.
ANSWER: curl <Reinstein>
17. Near the start of this tone poem, first violins enter two at a time, each sustaining a very high harmonic E. For 10 points each:
[10] Name this tone poem in which contrasting "Western" and "Eastern" themes depict a caravan being escorted by a patrol of Russian troops.
ANSWER: In the Steppes of Central Asia
[10] This Russian composer wrote In the Steppes of Central Asia and included the "Polovetsian Dances" in his unfinished opera Prince Igor.
ANSWER: Alexander Borodin [or Alexander Porfiryevich Borodin]
[10] In the late 1800s, Borodin was a member of an influential group of this many Russian composers. Beethoven's symphony of this number begins with a dramatic "short, short, short, LONG" motif. ANSWER: five [or Symphony No. 5; or the Mighty Five] <Kim>
18. Dog the Bounty Hunter tried to use this provision to capture the criminal Andrew Luster, but instead wound up in custody himself for not following Mexican law. For 10 points each:
[10] Name this common law right, which allows a private citizen to detain someone who has committed a misdemeanor or a felony.
ANSWER: citizen's arrest
[10] An essay by J on Pike suggests that this philosopher's conception of the "executive power of the law of nature" is similar to the notion of a citizen's arrest. This philosopher suggested that one has a right to property if he "mixes his labor" into nature.
ANSWER: J ohn Locke
[10] A citizen's arrest may be performed when a person has been caught red-handed. Such acts are described by this three-word Latin phrase.
ANSWER: in flagrante delicto <J ose>
19. Members of this group used objects dubbed "Great Enochs" in reference to a local blacksmith. For 10 points each:
[10] Name this group of workers in the English East Midlands who claimed allegiance to a mythical "King Ned."
ANSWER: Luddites [or Luddism]
[10] Parliament tried to discourage the Luddites by passing this 1812 legislation, which made the title act a capital offense. This legislation inspired one Luddite to write a letter to Prime Minister Spencer Perceval threatening "Blood for Blood."
ANSWER: Frame-Breaking Act [or Destruction of Stocking Frames, etc. Act 1812]
[10] Ned Ludd was rumored to live in Sherwood Forest, much like this earlier mythic Englishman. He supposedly stole from the rich and gave to the poor alongside his Merry Men.
ANSWER: Robin Hood [prompt on partial answer] <Bentley>
20. This man's most recent novel takes place after "the mist" has caused collective amnesia following a war between the Britons and the Saxons. For 10 points each:
[10] Identify this Booker-winning novelist who wrote about Axl and Beatrice trying to find their son in The Buried Giant.
ANSWER: Kazuo Ishiguro [or Ishiguro Kazuo]
[10] Ishiguro's novels A PaleView of Hills and An Artist of the Floating World are both set in this country. Naoki Matayoshi is a recent winner of this country's prestigious Akutagawa Prize for young writers.
ANSWER: Japan [or Nippon; or Nihon]
[10] Ishiguro's best known novel, The Remains of the Day, is narrated by Stevens, a character who represses his feelings for Miss Kenton and works in this profession for Lord Darlington.
ANSWER: butler [prompt on servant] <Bentley>
21. Because they are jagged, substances such as copper exhibit the "hackly" form of this mineral property. For 10 points each:
[10] Give this term that refers to the pattern of breakage of a mineral. Unlike the related cleavage, this term refers to the breaking that does not occur along the cleavage planes.
ANSWER: fracture
[10] Flint, opal and other glassy minerals tend to exhibit this type of fracture, which is so-named because the breakage resembles a mussel shell.
ANSWER: conchoidal fracture
[10] This glassy rock exhibits a conchoidal fracture. Rhyolitic lava flows are named after this black vitreous rock, which forms when there has not been enough time for crystal growth to fully occur. ANSWER: obsidian <J ose>

