Bulldog High School Academic Tournament 2015 (XXIV): It's more than good...it's Grace!

Written by Yale Student Academic Competitions (Isaac Kirk-Davidoff, Laurence Li, Grace Liu, Jacob Mitchell, Frederick Muth, Jacob Reed, Basil Smitham, Jacob Lawrence Wasserman, Nicholas Wawrykow, Mitchell Weldon, Haohang Xu)

Edited by Jacob Reed, with Grace Liu

Packet 7 Tossups

- 1. This river is home to the most contaminated nuclear site in the U.S. The Celilo Canal was flooded by this river's "The Dalles Dam," which lies near the entrance of its namesake gorge. A city along one of its tributaries is where Nike was founded and where Pre went to school. That tributary of this river flows past the Rose Garden and the city of (*) Eugene. This river is the location of the Bonneville Dam and Franklin Delano Roosevelt Lake, which is created by the Grand Coulee Dam. Its tributaries include the Snake and Willamette Rivers. For 10 points, name this river in the Pacific Northwest that flows along the border between Washington and Oregon. ANSWER: Columbia River <JM>
- 2. A film about these people was the first to use a shot of an approaching horde of enemies cresting a hilltop. A two-part 1941 film tells the story of forty-seven of these people. A character with this profession nicknames himself after a mulberry field he sees and wipes out two warring gangs. In another film, a character poses as one of these people with a scroll that says that he is thirteen years old and has a girly name. In that film, these people help (*) defend a village, but four of them are killed by musket-wielding bandits. Toshiro Mifune played one of them in *Yojimbo*. For 10 points, name these people who are the subject of many Japanese films, including one by Kurosawa about seven of them.

ANSWER: <u>samurai</u> [accept <u>Seven Samurai</u>; accept <u>ronin</u>; accept <u>The <u>47 Ronin</u>; prompt on "Japanese people" or similar] <JR></u>

3. A quantity named for this man can be calculated by using redshift of a distant object to derive its radial velocity and then dividing by the distance to that object. This man discovered Cepheid variables in Andromeda and Triangulum, which proved that there were galaxies outside the Milky Way. His namesake (*) constant is estimated by one over the age of the universe. This man developed a tuning-fork classification scheme for galaxies. His law models the expansion of the universe, which he "discovered." For 10 points, identify this American astronomer, the namesake of a NASA space telescope.

ANSWER: Edwin [Powell] Hubble <HX>

- 4. Description acceptable. This period began with Pelagius's defeat of Munuza at the 722 CE Battle of Covadonga. The revolt of Boabdil led to the end of this period. After a civil war during this period, small kingdoms called *taifa* cropped up. At the 1086 Battle of Sagrajas during it, the Almoravids took control over (*) *al-Andalus*. Later in this period, the Almohads were defeated at the Battle of Las Navas de Tolosa. Its end was marked by the fall of Granada to the union of Aragon and Castile in 1492. For 10 points, name this term referring to the time period during which the Iberian Peninsula slowly fell out of the control of Muslim rulers.

 ANSWER: Reconquista [accept any answer that involves Catholics driving the Muslims out of Spain] < MW>
- 5. A red-roofed temple in Pushkar is dedicated to this god. This god created the four Kumaras and the ten sages known as the Prajapati. He rides a hansa and had a head cut off by Shiva after being cursed to never be worshipped on Earth. He carried a spoon, a scepter, a water jug, and the Vedas in his four arms. In the form of both a bull and a horse, this father of (*) Manu chased his daughter/consort Saraswati. Frequently pictured sitting on a goose, this four-headed god was born from a lotus as the third member of the trimurti along with Vishnu and Shiva. For 10 points, name this Hindu creator god.

ANSWER: **Brahma** <JM>

6. In one work by this author, Karen attends a party instead of staying beside her sick foster mother; as a punishment, Karen's amputated feet continually dance in demonic red shoes. This author transmuted his love for Jenny Lind into a story about a nightingale, and he created a character who meets the robber girl as she travels through Lapland to extract a mirror fragment from Kai's heart. That character, Gerda, uses the Lord's Prayer to fend off the (*) Snow Queen. In another story by this author, a girl who feels like she is walking on knives will turn into sea foam unless she marries a human prince. For 10 points, identify this Danish author of fairytales like "The Little Mermaid."

ANSWER: Hans Christian Andersen <GL>

7. In this city, a looting spree followed a 1977 blackout. In 1989, the sexual assault of a jogger in this city led to the wrongful conviction of five young black and Latino men. In a subway in this city, four black men asked Bernhard Goetz for money, so he shot them. David Berkowitz killed 6 people here after he thought his dog was possessed by a demon. (*) Kitty Genovese was killed in this city. The high crime rate in this city was a factor in both Ed Koch's election as mayor in 1977 and Rudy Giuliani's in 1993. For 10 points, name this city home to the Son of Sam killer and the Central Park Five.

ANSWER: New York, New York [or New York City, New York; or NYC] <IKD>

8. [Note to moderator: please read the gray-highlighted text SLOWLY]

A modified type of this phenomenon stops as quickly as possible when its characteristic equation only involves one double root, a "critical" situation. In another situation, this phenomenon can be easily modelled by setting "I alpha" equal to "negative m-g-l-theta" using the small-angle approximation. Modelling it involves solving a second-order differential equation with no first-derivative term—like (*) "m d-squared-x d-t-squared equals negative k-x." It occurs when the displacement is proportional to the restoring force, as in Hooke's law. For 10 points, name this oscillation demonstrated by springs and pendula.

ANSWER: simple <u>harmonic motion</u> [accept simple <u>harmonic oscillation</u>; accept <u>harmonic oscillator</u>; prompt on "oscillation"] <JR>

9. Contrary to an ending devised by Herbert Tree, the author's postscript to this play insists that two characters become greengrocers after marrying, though they briefly continue to live in Wimpole Street. The mother of another character in this play shelters a girl who hurls slippers at her son; that girl impresses Clara with her "new small talk," which consists of phrases like "they done her in." In this play, a character howls (*) "ah ah ow ow o" when she mistakes a transcribing man for a Covent Garden policeman, though that friend of Colonel Pickering is actually a professor of phonetics. For 10 points, name this George Bernard Shaw play about Henry Higgins' education of flower girl Eliza Doolittle.

ANSWER: **Pygmalion** <GL>

10. They're not colors, but four of these things demarcate the cardinal directions in Mayan cosmology. One of these objects in Chinese myth dispenses gold coins when shaken. The Lady of the Lake trapped Merlin in one of these objects, and one belonging to Donar was destroyed by St. Boniface. Another of these objects is home to four stags and the (*) squirrel Ratatosk. That thing has three wells by its base, one of which is guarded by the three Norns. For 10 points, identify this object worshipped in Druidic sacred groves, an example of which is the World Ash, Yggdrasil.

ANSWER: a <u>tree</u> [or <u>tree</u>s; accept any species of tree] <GL>

11. At the end of the second act in one of this man's plays, a character asks the audience to offer up their chairs for firewood. In that play by this author, Moses, Homer, and the Muses visit a family whose maid,

Sabina, falls in love with Mr. Antrobus. One of his characters exclaims, "Why can't I stay for a while just as I am?" during her wedding, and later asks "Does anyone ever realize (*) life while they live it?" after reliving her twelfth birthday. In that play by this author, Simon Stimson and Emily Webb die, and the Stage Manager tells us facts about Grover's Corners. For 10 points, name this American playwright of *The Skin of Our Teeth* and *Our Town*.

ANSWER: Thornton [Niven] Wilder <LL>

12. This composer's organ works include the huge Fantasy and Fugue on "Ad nos, ad salutarem undam." His works are usually numbered using Humphrey Searle's catalogue. He revised an étude in thirds into "Mazeppa." This composer of "Waldesrauschen" and "Feux Follets" invented the symphonic poem, and his works in that genre include Les (*) Préludes. Études by this composer of six "Consolations" include "Gnomenreigen," "Un Sospiro," and "La Campanella," which was based on a piece by Paganini. His gentler pieces include "Liebestraum No. 3." For 10 points, name this virtuoso pianist and composer of Transcendental Etudes and Hungarian Rhapsodies.

ANSWER: Franz [Ritter von] Liszt [or Liszt Ferencz] <JR>

13. A leading trader of this good was Lancelot Dent, and it was supplied by "agency houses." In 1839, twenty thousand chests of this substance were handed over by Charles Elliot. The popularity of this good caused a mass outflow of silver during the "century of humiliation." Trade in it was initiated because Britain lacked other valuable commodities and desired (*) tea. Lord Elgin had the Old Summer Palace burned during a war over it. Two wars named for this good ended with the treaties of Tientsin and Nanking. For 10 points, name this drug that was at the center of two nineteenth-century wars between the U.K. and China.

ANSWER: opium <LL>

14. A poet from this country wrote "Pyramidal, fatal shadow born of the earth" in "First Dream." A book about that poet from this country is called *The Traps of Faith*. Another poet from this country used images like "writing of fire on the slab of jade" and the "turning course of a river that goes curving...goes roundabout, arriving forever." That poem from this country begins and ends "a willow of crystal, a poplar of water," and is entitled (*) "Sunstone." An author from this country analyzed the word "chingada" in essays like "The Sons of La Malinche" in *The Labyrinth of Solitude*. For 10 points, name this country home to Sor Juana Inés de la Cruz and Octavio Paz, who wrote about "The Day of the Dead."

ANSWER: <u>Mexico</u> [accept Viceroyalty of <u>New Spain</u> or Virreinato de <u>Nueva España</u> before the word "jade" in the third line; prompt on "Spain" or "España" before the word "jade" in the third line] <JR>

15. One disease of this organ is often treated using CCPDMA or Mohs surgery. Nevi appear in this organ. Eccrine glands are found in this organ, which is mostly composed of squamous cells. Another disease of this organ can be treated with benzoyl peroxide and is caused by overactive sebaceous glands. Applying zinc oxide and titanium dioxide can help prevent a disease of this organ that is characterized by different colours and (*) irregular borders. Vitamin D3 is produced in this organ. Red bumps on this organ can be caused by the buildup of keratin in the hair follicles below its epidermis. For 10 points, name this large organ that is affected by melanoma and acne.

ANSWER: skin <JR>

16. Description acceptable. The traditional "banking" approach to this activity perpetuates oppression, while an "authentic" approach to it makes people more human, according to Paolo Freire. Another theorist of it focused on "human tendencies" and advocated a "constructivist" approach to this. Vygotsky's idea of a "Zone of proximal development" has led to the (*) "scaffolding" approach to this activity. Benjamin Bloom created a taxonomy of its objectives. John Dewey believed that it was the key to democracy. A theorist of it argued

for working with many ages at once and noticed "spontaneous discipline" with the right choice of activities. For 10 points, name this activity studied by people like Maria Montessori.

ANSWER: <u>education</u> [or <u>pedagogy</u>; accept <u>Pedagogy of the Oppressed</u>; accept any answer involving <u>teach</u>ing, <u>instruction</u>, <u>learn</u>ing, etc.] <JR>

17. Joseph Gallieni, a military governor of this city, helped win a battle to defend it. Patrice MacMahon attacked this city during "the Bloody Week." Later, during the Race to the Sea, this city's taxicabs were enlisted to transport defending troops. Auguste Blanqui was elected in absentia by a (*) revolutionary movement in this city, some of whose members subscribed to the ideas of Pierre-Joseph Proudhon. That government in this city was crushed in 1871 after the fall of the Second Empire. For 10 points, name this city, which was ruled by a namesake Commune after the defeat of Napoléon III in the Franco-Prussian War.

ANSWER: City of **Paris** [or Ville de **Paris**] <JW>

18. One song by this artist is about a boy who leaves "the boredom and the chowder" for "sweet New England." In another song by this artist, two boys say goodbye to "Rosie, the Queen of Corona." In addition to "Duncan" and "Me and Julio down by the Schoolyard," this singer covered the Peruvian song "El (*) Condor Pasa" and sang "So long, Frank Lloyd Wright" before starting his solo career. In his most famous album, he sang "Diamonds on the Soles of her Shoes" with Ladysmith Black Mombaza and offered "If you'll be my bodyguard, you can be my long lost pal" in "You Can Call Me Al." For 10 points, "Bridge over Troubled Water" was inspired by what artist's breakup with Art Garfunkel?

ANSWER: Paul [Frederic] Simon [do NOT accept or prompt on "Simon and Garfunkel"] <IKD>

19. This kind of reaction produces an aldehyde from an alcohol. Hexavalent chromium compounds like dichromates promote this kind of reaction, as do all electron acceptors. This happens to carbon in combustion reactions. This process occurs first for less "noble" materials in the galvanic series. To balance this kind of half-reaction, electrons are added to the (*) right-hand side. This kind of reaction happens at the anode, and it happens to iron to form rust. For 10 points, name this kind of reaction that involves the loss of an electron and is contrasted with reduction.

ANSWER: oxidation [prompt on "redox"] <JR>

20. This is the most prominent color in a portrait of Angel Fernández de Soto with a glass of absinthe. In one painting in this color, a fully dressed woman on the right holds a baby and stares accusingly at a naked couple on the left. La Vie is mostly in this color, as is a painting in which the title person's shirt is ripped at the left shoulder, his legs are crossed, he stares at the ground, and holds his (*) instrument almost vertically. This is the most prominent color in *The Old Guitarist*. After his obsession with this color, Picasso began his "Rose" Period. For 10 points, identify this color that Picasso used heavily in his namesake, depressing "[it] Period." ANSWER: blue [or bleu; or azul; accept blue period etc.] <JR>

Tiebreaker

21. One candidate in this election claimed operatives were trying to stop his daughter's wedding and formed United We Stand America. Another candidate gained popularity by denouncing comments made by Sister Souljah. A keynote address in a convention during this election mentioned a "Culture war" going on "for the soul of America," and was given by Pat Buchanan. Another speech in this election talked about the "giant (*) sucking sound" that NAFTA would create. The winning candidate in this election said he "didn't inhale" and played the sax. Several 30 minute infomercials were made by Ross Perot in, for 10 points, in which election, where George H.W. Bush lost to Bill Clinton?

ANSWER: 1992 United States Presidential election [accept Election of '92 and other equivalents] <IKD>

Packet 7 Bonuses

- 1. He celebrated a "conscientious object-or" who was "more brave than me: more blond than you" in "i sing of Olaf, glad and big." For 10 points each:
- [10] Name this poet who used interesting typography in works like "anyone lived in a pretty how town."

ANSWER: e.e. cummings

[10] This "blueeyed boy" and founder of the Wild West Show is now "defunct" and belongs to "Mister Death," according to a cummings poem, though he once could break "onetwothreefourfive pigeons justlikethat."

ANSWER: **Buffalo Bill** [or William Cody]

[10] Name any *one* of the four girls who "went down to the beach(to play one day)." They collectively title a cummings poem which states, "it's always ourselves we find in the sea."

ANSWER: Maggie, Milly, Molly, or May <GL>

- 2. Answer some questions about Italian thought in the eighteenth century, for 10 points each.
- [10] Giambattista Vico proposed a *New Science* of this field, involving a recurring cycle of "divine," "heroic," and "human" stages. A more recent writer in this field is Barbara Tuchman, the author of *The Guns of August*.

ANSWER: history

[10] This Italian philosopher attacked torture, poor prison conditions, and the death penalty in *On Crimes and Punishments*.

ANSWER: Cesare [Marquis] Beccaria [-Bonesana]

[10] Vico and Beccaria were both influential thinkers during this eighteenth-century "Age of Reason," during which philosophers promoted rational skepticism and toleration.

ANSWER: The Age of **Enlightenment** [or **Illuminismo**] <JR>

- 3. During this time period, Valerian became the only Roman Emperor to be captured in battle. For 10 points each:
- [10] Name this terrible time for the Roman Empire, which started after the collapse of the Severan dynasty. Luckily, at the end of this time period, Diocletian took over and fixed things right up.

ANSWER: the <u>Third Century</u> A.D. [or the <u>200</u>s A.D.; accept <u>Crisis of the Third Century</u>; accept <u>235-84</u> A.D.; do <u>NOT</u> accept any answer with "B.C." or "B.C.E." in it]

[10] Probably the most important thing Diocletian did to resolve the Crisis of the Third Century was *this* action, which created the Tetrarchy. One result of this action later became the Byzantine Empire.

ANSWER: **split**ting the Empire in half [accept any reasonable equivalents; accept answers about forming the **East**ern and **West**ern Roman Empires]

[10] Diocletian probably couldn't have done it without Aurelian, who built a massive one of these structures for Rome. Another of these structures in the far northwest of the Empire was briefly succeeded by one named for Antoninus Pius.

ANSWER: walls [the other one is Hadrian's Wall] <JR>

- 4. She recently wrote an op-ed in the *Times* attacking Laurent Fabius for not using the word "Islamist." For 10 points each:
- [10] Name this far-right and anti-Muslim French politician, the leader of the *Front National*, who was excluded from the *Charlie Hebdo* vigil. She has called for tighter border security and the return of the death penalty.

ANSWER: Marine Le Pen [prompt on just "Le Pen"; do NOT accept or prompt on "Jean-Marie Le Pen"]

[10] Heinz-Christian Strache, leader of this Austrian political party, has frequently appeared with Le Pen. Like the FN this party is virulently anti-Muslim and anti-immigration and was formerly led by Jorg Haider.

ANSWER: FPÖ [accept Freedom Party of Austria, Freiheitliche Partei Österreichs]

[10] Both Le Pen and HC Strache have shown support for this current President of Russia, saying the EU-imposed sanctions against his country were unfair.

- 5. This painter, like many in the late 19th century, was strongly influenced by Japanese art. For 10 points each.
- [10] Name this painter who copied three Japanese prints, including two by Hiroshige. He made several paintings of olive trees, wheat fields, and various locations in the town of Arles.

ANSWER: Vincent van Gogh [Note that people pronounce it "van Goh," "van Goff," or "van Hokh"]

[10] Those Hiroshige prints that Van Gogh copied were in this Japanese style of woodblock prints. Hokusai's *The Great Wave off Kanagawa* is a famous example of these kind of works, whose name means "pictures of the floating world."

ANSWER: ukiyo-e

[10] Van Gogh's Japanese influence is particularly evident in his series of paintings of these big, yellow flowers.

ANSWER: sunflowers <JR>

- 6. Facebook can be used to demonstrate a lot of things. For 10 points each:
- [10] If you choose "most recent" on your news feed, the stories that were posted last appear first. That emulates the "last in, first out" mechanism of this data structure, which, like a queue, has "push" and "pop" operations.

ANSWER: stack

[10] Strangely, if you have just 23 friends, there's a greater-than-50% chance that two of them share a birthday. By *this* principle, if you have 367 friends, two of them *must* share a birthday, since there are only so many days in a year.

ANSWER: pigeonhole principle [accept any answer involving Peter Gustav Lejeune Dirichlet]

[10] If you model your friends as a graph where people are vertices and friendships are edges, this is the name for a group of your friends in which everyone is friends with each other.

ANSWER: clique [Yes, that's a technical term.] <HX>

- 7. This poet wrote twenty of the twenty-four poems in the 1798 collection of *Lyrical Ballads*, and he articulated the principles of Romanticism in the preface to the 1800 edition. For 10 points each:
- [10] Identify this poetic partner of Samuel Taylor Coleridge. He "wandered lonely as a cloud" in a poem about daffodils and also wrote "Tintern Abbey."

ANSWER: William Wordsworth

[10] In "Tintern Abbey," the final poem in *Lyrical Ballads*, Wordsworth declares that this number of years have passed since he last heard the River Wye rolling from its "mountain springs with a soft inland murmur."

ANSWER: <u>five</u> years [or <u>five</u> summers; or <u>five</u> long winters]

[10] In another poem, Wordsworth's narrator is befuddled when a cottage girl insists that her family consists of this number of children, even though two are clearly dead, since they "lie beneath the church-yard tree."

ANSWER: seven [accept "We are Seven"] <GL>

- 8. In the 1929 Lateran Treaty, part of this country became Vatican City. For 10 points each:
- [10] Name this modern-day country, home to Giuseppe Garibaldi. A kingdom in it was once ruled by Victor Emmanuel II.

ANSWER: Republic of Italy [or Reppublica Italiana]

[10] A paramilitary organization in Italy was named the "Brigades" of this color. Earlier, Garibaldi's "Expedition of the Thousand" wore this color of shirt.

ANSWER: **red** [or **rosso**]

[10] The Red Brigades were active during Italy's Years of Lead, when they kidnapped and killed this former Italian Prime Minister, Italy's longest serving.

ANSWER: Aldo [Romeo Luigi] Moro <LL>

- 9. It is divided into *suras* like "The Cow." For 10 points each:
- [10] Name this sacred text of Islam.

ANSWER: the **Koran** [accept any answer with those consonants in that order]

[10] The Koran was revealed to Muhammad by this Angel, who also made the Annunciation to Mary.

ANSWER: **Gabriel** [or **Jibril**]

[10] You can't just recite the Koran any old way! You have to follow these rules of elocution and pronunciation.

ANSWER: tajweed <JR>

- 10. In this musical, Anthony and the evil Judge Turpin both moon over Johanna, the title character's daughter. For 10 points each:
- [10] Name this 1979 musical in which Mrs. Lovett's "Worst Pies in London" become bestsellers after she begins making them with the flesh of clients slain by the Demon Barber of Fleet Street.

ANSWER: Sweeney Todd: The Demon Barber of Fleet Street

[10] This composer and lyricist of *Sweeney Todd* castigated "The Ladies Who Lunch" in *Company*, adapted an Ingmar Bergman film into *A Little Night Music*, and contributed lyrics to songs in *Gypsy*.

ANSWER: Stephen [Joshua] Sondheim

[10] In this showpiece for Desiree Armfeldt in *A Little Night Music*, the actress bitterly asks, "Isn't it rich? Isn't it queer? Losing my timing this late in my career?"

ANSWER: "Send in the Clowns" <GL>

- 11. This process is performed by the sodium-potassium pump. For 10 points each:
- [10] Name this process of moving ions into or out of a cell *against* the concentration gradient. Thus, this process *increases* the concentration gradient and uses energy.

ANSWER: active transport [prompt on just "transport"]

[10] Since it uses energy, active transport requires the hydrolysis of this "energy currency of the cell," which is produced via respiration in the mitochondrion.

ANSWER: **ATP** [or **adenosine triphosphate**]

[10] The concentration gradient built up by active transport can be rapidly decreased by ion channels that open with this stimulus. In neurons, sodium and potassium channels that are activated by *this* make the action potential happen. ANSWER: a **voltage** [accept **voltage-gated**] <JR>

- 12. This mythical creature is said to resemble a kangaroo with a goat head, but wings, and a forked tail. For 10 points each:
- [10] Identify this thirteenth child of Mother Leeds, which resides in the Pine Barrens on the Atlantic coast.

ANSWER: the New <u>Jersey Devil</u> [or the <u>Leeds Devil</u>]

[10] This other cryptid lives in a cloudy Scottish lake. It was supposedly captured in the "Surgeon's Photograph," though that image was later proven to be inauthentic.

ANSWER: the **Loch Ness monster** [or **Nessie**; or **Niseag**]

[10] This country is home to cryptids like the bunyip, which has loud cries and likes to kidnap children.

ANSWER: Australia <GL>

- 13. He declared that "you shall not crucify mankind upon a Cross of Gold!" For 10 points each:
- [10] Name this perennial Democratic presidential candidate, who later served as Wilson's Secretary of State.

ANSWER: William Jennings Bryan

[10] Bryan's presidential campaign was backed by this third party, which crusaded against banks and railroads on behalf of poor farmers.

ANSWER: **Populist** Party [or **People's** Party]

[10] The issue of bimetallism became especially prominent after the disastrous economic panic in this year.

ANSWER: 1893 [prompt on "93"] <FM/JR>

- 14. Answer some questions about acids, for 10 points each.
- [10] The Brønsted-Lowry and Arrhenius theory of acids both involve the transfer of these positively-charged particles. They are also known as hydrogen ions, since hydrogen is composed of one of them and an electron.

ANSWER: proton

[10] In water, "hydrogen ions" is often used to refer to *this* cation, which they form readily. This is the acid produced by the auto-dissociation of water.

ANSWER: **hydronium** [or **H3O** plus; or **hydroxonium**]

[10] The most well-known Lewis acids that are not Brønsted-Lowry or Arrhenius acids include *this* element. Specifically, it forms trigonal planar trihalides that violate the octet rule.

ANSWER: **boron** [or \mathbf{B}] <JR>

- 15. This nation's men's soccer team beat Brazil 7-1 in the 2014 World Cup semi-finals. For 10 points each:
- [10] Identify this country, whose national soccer team went on to win the 2014 World Cup final against Argentina.

ANSWER: **Germany** [or **Deutschland**]

[10] Argentina's captain is this Barcelona forward and four-time Ballon d'Or winner. He and Cristiano Ronaldo are widely considered the two best players in the world.

ANSWER: Lionel Andrés "Leo" Messi Cuccittini

[10] At Barcelona, Messi plays alongside Neymar and this Uruguayan forward. At the World Cup, this man received a four-month ban from competitive games after biting Italian defender Giorgio Chiellini.

ANSWER: Luis Alberto Suárez Díaz <BS>

16. Clifford Brown played this instrument. For 10 points each:

[10] Name this instrument played by the creator of "Freddie Freeloader" and "So What."

ANSWER: trumpet

[10] Miles Davis included those tracks on this landmark 1959 album.

ANSWER: Kind of Blue

[10] This pianist, who is otherwise known for "Waltz for Debby," played with Miles Davis on Kind of Blue.

ANSWER: Bill **Evans** [or William John **Evans**] <JR>

- 17. A character with this profession briefly steals Brett Ashley from Mike Campbell, though she eventually abandons him in Madrid. For 10 points each:
- [10] Identify this vocation of Pedro Romero and of a man who dies "at exactly five in the afternoon," according to a poem about Ignacio Sanchez Mejias.

ANSWER: **bullfighter** [or **matador**; or **torero**]

[10] "Lament for the Death of a Bullfighter" is an elegy by this poet and playwright, whose Rural Trilogy consists of *Blood Wedding, Yerma*, and *The House of Bernarda Alba*.

ANSWER: Federico [del Sagrado Corazón de Jesús] García Lorca

[10] Garcia Lorca was a key member of this country's Generation of '27 before his death at the hands of Francisco Franco's Nationalist Forces during this country's civil war.

ANSWER: Kingdom of **Spain** [or Reino de **España**] <GL>

- 18. This law can be formulated as "the divergence of the electric field equals charge density over the permittivity of free space." For 10 points each:
- [10] Name this law, which implies Coulomb's law. It can also be stated as "the integral of the electric field on a closed surface equals the charge enclosed by the surface over the permittivity of free space."

ANSWER: Gauss's law for electric fields

[10] Gauss's law is one of the four equations modelling electricity and magnetism that were compiled by this Scottish physicist.

ANSWER: James Clerk **Maxwell** [accept **Maxwell's Equations**]

[10] Gauss's law implies that given a sphere of uniform charge density, the electric field given off outside the sphere is the same as the field that would be given off by this much simpler system.

ANSWER: it acts like all the charge is concentrated at its $\underline{\text{center}}$ [accept any answer involving the $\underline{\text{center}}$ of the shell or a $\underline{\text{point}}$ charge] <JR>

19. Answer some questions about literary appearances of prickly plants. For 10 points each:

[10] In the first poem from her collection, *A Few Figs from Thistles*, this poet quipped, "My candle burns at both ends; It will not last the night; but ah, my foes, and oh, my friends—it gives a lovely light!"

ANSWER: Edna St. Vincent Millay

[10] This Japanese author described Kaname and Misako's loveless marriage and contrasted it with the appeal of a traditional Kansai girl like O-hisa in his novel *Some Prefer Nettles*.

ANSWER: Junichiro <u>Tanizaki</u> [or <u>Tanizaki</u> Junichiro]

[10] A Drunk Man Looks at a Thistle is a long poem written entirely in dialect from this U.K. country. The expressive qualities of this country's dialect were also explored by Robert Burns in "Auld Lang Syne."

ANSWER: Scotland [or Alba] <GL>

20. One of the goals of this protest was to prevent the Japanese from receiving Shandong. For 10 points each:

[10] Name this 1919 movement. It grew out of Beijing student protests over the Treaty of Versailles.

ANSWER: May Fourth Movement [or Wusi Yundong]

[10] 1919 was also when *this* man became Premier of the Chinese Nationalist Party. He drafted the Three Principles of the People and earlier was the first provisional president of China.

ANSWER: Dr. <u>Sun</u> Yat-sen [or <u>Sun</u> Wen; or <u>Sun</u> Zhongshan; or <u>Sun</u> Yixian; do <u>NOT</u> accept or prompt on just "Yat-sen"]

[10] After Sun Yat-sen died, Chiang Kai-shek took over the Kuomintang. Chiang later retreated to this island, which he proclaimed the "Republic of China;" of course, the People's Republic of China doesn't recognize this country.

ANSWER: <u>Taiwan</u> [or <u>Formosa</u>] <LL>

Tiebreaker

- 21. One of these can be cleverly found by inserting rods between parallel boards for every vertex and dipping the whole contraption into bubble solution. For 10 points each:
- [10] That would be a "minimum spanning" type of these cycle-free graphs. Each vertex of degree 1 in one of these is called a leaf.

ANSWER: trees

[10] This type of spongy tissue, also known as the medulla, makes up the innermost of young branches of trees. In older ones, it is replaced with xylem.

ANSWER: pith

[10] In computer science, B-trees are often used in these systems, as they are designed to optimize loading of memory blocks. Many of these systems support queries in SQL, and their schemes can be depicted with entity-relation models.

ANSWER: databases <HX>