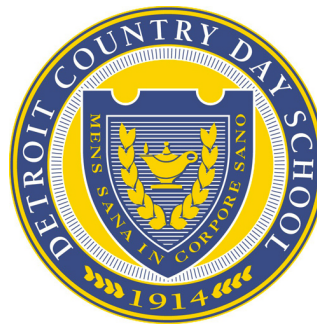


## Detroit Country Day Academic Regular Tournament II

### Packet 3

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Special thanks to Neil Gurram

1. **Some of these animals have a defense mechanism in which hydroquinone [hye-droh-KWIN-ohn] reacts with hydrogen peroxide. Population booms of one of these animals cause North American pine forests to undergo periodic die-offs. Most of these animals possess elytra [eh-LYE-truh], a pair of modified (\*) wings. J. D. S. Haldane remarked that God has an “inordinate fondness” for these animals, which make up 25% of all animal species. Some of these animals roll up feces into balls and are called their “dung” variety. For 10 points, name this order of insects that includes weevils, scarabs, and ladybugs.**

ANSWER: **beetle** [or **Coleopterans**; accept bombardier **beetles** or mountain pine **beetles** or dung **beetles**; prompt on **insects** or **Insecta**; prompt on **arthropods** or **Arthropoda**]  
<Biology, Yin> [Ed.]

Answer the following about the devil’s appearance in American short stories. For 10 points each:

[M] This author wrote about Satan, nephew of the Biblical Satan, who takes three Austrian boys from the village Eseldorf to witness witch burnings in *The Mysterious Stranger*. In another of his stories, an educated lawyer is mistaken for the idiot “Pudd'nhead.”

ANSWER: Mark **Twain** [or Samuel **Clemens**]

[H] This story from the collection *Tales of a Traveler* depicts a miser who is dragged to hell by Mr. Scratch after shouting “Devil take me if I have made a farthing!”

ANSWER: “The **Devil and Tom Walker**”

[E] A New Hampshire farmer named Jabez Stone is saved from the devil after selling his soul in a Stephen Vincent Benet story titled for the Devil and this New England Lawyer and Senator.

ANSWER: Daniel **Webster** [accept “The Devil and **Daniel Webster**”]

<US Literature, Zhou> [Ed.]

2. **Scottish fencer Sir Cosmo Duff-Gordon controversially offered £5 [five-pound] notes as a bribe during this event. Reginald Lee and Frederick Fleet contributed to this event by not having binoculars. William Alden Smith chaired the Senate hearings into this event, during which (\*) Molly Brown tried to rescue victims. A band allegedly played the song “Nearer, My God, to Thee” during this event, which J. Bruce Ismay survived. Robert Ballard developed the *Argo* to discover the remains of this event, whose survivors were rescued by the RMS *Carpathia*. For 10 points, name this 1912 event in which a purportedly “unsinkable” ocean liner struck an iceberg in the Atlantic Ocean.**

ANSWER: **sinking** of the RMS **Titanic** [accept equivalents like **wrecking** of the **Titanic**; prompt on partial answers]  
<Mixed/Other History, Melkumian> [Ed.]

This work opens with a recitative in which the soloist plays somber triple and quadruple-stop chords before playing the main theme in 9/8 time. For 10 points each:

[H] Name this 1919 work. Sir John Barbirolli made a landmark recording of this piece with a soloist who later died of multiple sclerosis.

ANSWER: Edward **Elgar**'s ***Cello Concerto in E minor*** [accept **Elgar Op. 85**; prompt on **cello concerto** or ***Cello Concerto in E-minor*** by asking "by whom?"]

[M] After recording Elgar's concerto with Barbirolli, cellist Jacqueline du Pré performed it again with Malcolm Sargent at this BBC summer concert series held at the Royal Albert Hall in London.

ANSWER: The **Proms** [or The BBC **Proms**; accept **Henry Wood Promenade Concerts**]

[E] Elgar also wrote a set of six works in this genre titled "Pomp and Circumstance." John Philip Sousa was known as the "king" of this genre in America.

ANSWER: **marches** [or military **marches**]

<Classical Music, Chapman> [Ed. Bowman]

3. **One section of a work by this thinker discusses *on* and reciprocals of *on* and is titled "Repaying One-Ten-Thousandth."** This thinker contrasted emphases on *restraint* and *abandon* in Pueblo and Great Plains cultures using the dichotomy of "Apollonian" and Dionysian." This thinker examined the concept of *giri* in a work commissioned by the (\*) Office of War Information. In one book, this thinker compared the guilt and shame cultures of America and Japan. For 10 points, name this anthropologist who wrote *Patterns of Culture* and *The Chrysanthemum and the Sword*.

ANSWER: Ruth (Fulton) **Benedict**

<Social Science, Wu> [Ed. Golfinos]

The director describes the orientation of molecules in this phase. For 10 points each:

[H] Name this phase of matter that exhibits short-range, but not long-range order. Lyotropic forms of this phase are made by combining an amphiphile [AM-fih-"file"] and a solvent.

ANSWER: **liquid crystals** [do NOT accept or prompt on "crystals"]

[E] Due to their short-range order, liquid crystals are often said to have properties between liquids and this rigid phase of matter.

ANSWER: **solids** [or **solid** phase]

[M] Liquid crystal displays use liquid crystals to alter this property of light as it passes between two optical filters. Liquid crystals can also change the handedness of this property's "circular" form.

ANSWER: **polarization** [or word forms such as **polarized**; accept circular **polarization**]

<Physics, Wu> [Ed.]

4. **During this musician's 15-month stay in Los Angeles, his New York band brought in Sonny Stitt to mimic his style. This musician offered to cook for composer Edgard Varese in exchange for lessons during his classical-inspired late period during which he recorded an album named for himself "with strings." This musician also created the jazz standard "Blues for Alice" and was inspired by Ray Noble's (\*) "Cherokee" to write the standard "Ko-Ko".** His collaborations with Dizzy Gillespie led to the creation of songs such as "Anthropology," and he also wrote the standards "Yardbird Suite" and "Ornithology." For 10 points, name this Bebop saxophonist nicknamed "Bird".

ANSWER: Charlie **Parker** (Jr.) [prompt on **Bird** or **Yardbird** before they are mentioned]

<Jazz, Yang> [Ed. Bowman]

This character attempts to get revenge on Pavel by seducing his wife, Helena. For 10 points each:

[H] Name this character who sends Marketa a postcard that says “A healthy spirit stinks of stupidity! Long live Trotsky!”, resulting in his expulsion from the Party.

ANSWER: **Ludvik Jahn** [accept either underlined portion]

[M] Ludvik Jahn writes “Optimism is the opium of the people!” in *The Joke*, a novel by this author of *The Book of Laughter and Forgetting*.

ANSWER: Milan **Kundera**

[E] Kundera also depicted Tomas and Tereza trying to leave their home country after this Czech city’s namesake “Spring” in *The Unbearable Lightness of Being*.

ANSWER: **Prague**

<European Literature, Joshi> [Ed.]

5. **An estimator of this quantity can be adjusted to be unbiased by Bessel’s correction. This quantity equals the second derivative of the moment generating function at zero. For a random variable  $x$ , this quantity equals the expected value of  $x$  squared, minus the square of the expected value of  $x$ ; or the expected value of the square of (\*)  $x$  minus the mean. Though it’s not the mean, the sum of this quantity for independent random variables equals this quantity of their sum. This quantity equals the square of the standard deviation. For 10 points, name this quantity that represents how spread out a distribution is.**

ANSWER: **variance**

<Math, Wu> [Ed. Liu]

This speech discusses how a concept has manifested itself in the “loss of unity of purpose for our nation.” For 10 points each:

[H] Name this speech, which outlined an invisible threat that “all the legislation in the world can’t fix.”

ANSWER: “**Malaise**” speech [accept “**crisis of confidence**” speech]

[E] Jimmy Carter’s “Malaise” speech was primarily aimed to address the 1970s crisis of this resource. Carter encouraged carpools and public transportation in order to conserve this resource.

ANSWER: **oil** [or **petroleum**; accept **gasoline**; accept **energy** crisis]

[M] The initial positive reception to the “Malaise” speech was overshadowed in Carter’s legacy by his failure to deal with this crisis that was resolved on the first day of the next president’s inauguration.

ANSWER: **Iranian hostage crisis** [accept answers that mention the capture of the **Tehran American embassy** and its inhabitants]

<US History, Gayden> [Ed.]

6. **The St. Francois [Francis] Mountains, one of the oldest igneous ranges in the US, contain this state’s highest point at Taum Sauk Mountain. The “Live Entertainment Capital of the World,” Branson, is in this state. The largest city named Springfield is located in this state. A reservoir in this state on the (\*) Osage River is named for Harry S. Truman, whose hometown, this state’s city of Independence, was the starting point of the Oregon Trail. This state’s namesake river meets the Kansas River at the largest city in this state, Kansas City. For 10 points, name this Midwestern state home to the Gateway Arch in St. Louis.**

ANSWER: **Missouri** [accept **MO**; accept **Missouri** River]

<Geography, Madugula> [Ed. Ma]

In 1802, Luke Howard introduced the three major classes of these structures. For 10 points each:

[E] Name these floating structures made of water, the source of precipitation.

ANSWER: **clouds**

[H] Clouds are created when water vapor coalesces around these particles. Cloud seeding is performed by releasing these particles into the atmosphere.

ANSWER: cloud **condensation nuclei** [or cloud **condensation nucleus** or **CCNs**; prompt on nuclei or cloud seeds]

[M] These clouds, made up of ice crystals, are named for their thin and wispy appearance. These are the highest clouds that form in the troposphere.

ANSWER: **cirrus** [SEAR-uss] clouds

<Earth Science, Wu> [Ed.]

7. **Carl Tiflin's grandfather comes to terms with his dreams of westward expansion at the end of a four-part novella by this author. In another novel by this author, a doctor initially refuses to treat a child's scorpion sting. After being flipped over by a swerving truck, a symbolically resilient (\*) turtle manages to cross a highway in a novel by this author of *The Red Pony* and *The Pearl*. In a novel by this author, the former preacher Jim Casey is killed during a peach pickers' strike. That novel by this author centers around the Joad Family, who move to California amidst the Dust Bowl. For 10 points, who wrote *The Grapes of Wrath*?**

ANSWER: John **Steinbeck** [or John Ernst **Steinbeck, Jr.**]

<US Literature, Gayden> [Ed.]

This deity slayed his son Kagutsuchi, the kami of fire, because his wife died in pain while giving birth to him. For 10 points each:

[M] Name this kami who fled Yomi, the Japanese underworld, after seeing the now hideous appearance of his wife Izanami.

ANSWER: **Izanagi** [or **Izanaki**]

[H] Izanami was not allowed to leave Yomi because she had done this specific action. *A description is acceptable.*

ANSWER: **eating the food of the underworld** [accept equivalents indicating the **consumption** of **food** that is **cooked** in the **underworld**; accept **Yomi**-no-kuni in place of "underworld"; prompt on answers that mention eating]

[E] After returning from Yomi, Izanagi washed himself, which resulted in the birth of offspring including Amaterasu. Through her grandson Ninigi, she is an ancestor of the holders of this ceremonial office, such as the current holder Naruhito.

ANSWER: **Emperor** of Japan [or **Tenno**]

<Mythology, Chae> [Ed. Suh]

8. **This empire employed interim territorial governors called farins. This empire's decline saw its rulers become regional governors of Kangaba, where its Kouroukan Fouga constitution was signed. The *dyula* merchant caste of this empire held influence in its Gbara legislature. This empire constructed the (\*) Djinguereber mosque, a part of Sankore university. A ruler of this empire went on a hajj so expensive that it devalued gold as far as Cairo. Sundiata Keita founded, for 10 points, what thirteenth century West African empire ruled by Mansa Musa?**

ANSWER: **Mali** Empire

<World History, Hartung> [Ed.]

In a book about the *Social History* of this weapon, John Ellis argued that it was the primary enabler of European imperialism. For 10 points each:

[M] Name this weapon, an early example of which was built by Hiram Maxim.

ANSWER: **machine gun** [prompt on Maxim gun or on gun alone]

[H] During the Second Boer War, many Britons became disillusioned with imperialism after an all-woman commission named for this suffragette exposed British concentration camps. This woman founded the NUWSS in 1897.

ANSWER: Millicent **Fawcett** [or Dame Millicent Garrett **Fawcett**]

[E] This Marxist leader claimed that imperialism represented the “highest stage” of advanced monopoly capitalism. This man later became the first leader of the Soviet Union.

ANSWER: Vladimir **Lenin** [or Vladimir Ilyich **Ulyanov**]

<European History, Gayden> [Ed.]

9. **One of these objects was created in secret by Annatar. One of these objects was rediscovered in the Gladden Fields on the banks of the river Anduin [ON-do-in]. *Nenya* was an object of this type made of mithril that Galadriel [guh-LAD-reel] used to create (\*) Lothlórien. The Nazgûl [NAZ-ghoul] received nine of these objects as gifts. Isildur bore one of these objects that granted invisibility. One of these objects described as “precious” was destroyed by Gollum in the fires of Mount Doom at the end of Frodo Baggins’ quest. J. R. R. Tolkien wrote about the “lord” of, for 10 points, what objects?**

ANSWER: **rings** of power [accept Lord of the **Rings**; accept the three elven **rings**; accept **Isildur’s Bane** or the **One Ring** before “*Nenya*” is read]

<British Literature, Gayden> [Ed. Cheriyan]

This problem was originally proposed by the mathematicians Merrill Flood and Melvin Dresher and adapted by Albert Tucker into its current format. For 10 points each:

[E] Name this problem in which two criminals are given the option to stay silent or to betray their counterpart, which can result in a shorter or longer sentence.

ANSWER: the **Prisoner’s Dilemma**

[M] The most likely final outcome involves both prisoners betraying each other according to this solution concept where a player has no incentive to change their strategy after considering the strategy of their opponents.

ANSWER: **Nash equilibrium**

[H] The earliest proof of what is now known as the Nash Equilibrium in two-player games was by this mathematician who laid the foundation for modern Game Theory.

ANSWER: John von **Neumann**

<Social Science, Peela> [Ed.]

10. **Frederik Meijer commissioned Nina Akamu to create a large sculpture of one of these animals based on a Leonardo da Vinci model that was never realized. Four Byzantine bronze statues of these animals were originally placed on the facade of St. Mark’s Basilica. One of these animals tramples a snake in a sculpture that sits atop the Thunder Stone by (\*) Étienne Falconet. One of these animals raises a foreleg in a Verrocchio statue. This animal steps on a cannonball in a statue honoring Erasmo da Narni. Donatello’s *Gattamelata* depicts a man riding one of these animals. For 10 points, what animals are depicted in equestrian statues?**

ANSWER: **horses** [or **equines**]

<Sculpture, Guo> [Ed. Sun]

Three members of this country's parliament resigned in August 2020 after they broke COVID-19 regulations in the "Golfgate" scandal. For 10 points each:

[E] Name this country, which is led by Micheál Martin. The aforementioned MPs were in this country's Oireachtas [EHR-eck-tess], which is located at Leinster House in Dublin.

ANSWER: **Ireland** [or Republic of **Ireland**; or **Éire** or Poblacht na h**Éireann**; do not accept or prompt on "Northern Ireland"]

[M] Micheál Martin holds this title in the Irish government and will give it back to Leo Varadkar, the previous holder of this title, in 2022. This Gaelic word literally means "chief" or "leader."

ANSWER: **Taoiseach** [TEE-shuck] [be generous with pronunciation]

[H] Martin will relinquish the title of Taoiseach because of a coalition agreement that this party, which he leads, entered in 2020 with Fine Gael [FIN-uh GAIL] and the Green Party.

ANSWER: **Fianna Fáil** [FEE-nuh FOIL] [or **Fianna Fáil** – The Republican Party or **Fianna Fáil** – An Páirtí Poblachtánach]

<Current Events, Chapman> [Ed.]

11. **A technique named for this scientist can be used to calculate a ratio between two waves called the E/A ratio. Trucks called "[this scientist] on Wheels" are used to observe and study tornadoes. A quantity named for this scientist is the minimum temperature achievable using his namesake laser cooling. Canal rays were used to measure the (\*) transverse form of an effect named for this scientist in an experiment conducted by Ives and Stilwell. The change in the absorption spectra of stars can be explained by this scientist's effect. For 10 points, what scientist whose namesake effect explains why the pitch of an incoming siren increases.**

ANSWER: Christian **Doppler** [or Christian Andreas **Doppler**; accept **Doppler** Effect or **Doppler** echocardiography or **Doppler** ultrasonography or **Doppler** on Wheels or **Doppler** laser cooling]

<Physics, Melkumian> [Ed.]

These entities are considered "gerade" [gair-AH-duh] if their signs do not change upon inversion. For 10 points each:

[M] Name these entities that include the HOMO [homo] and the LUMO [LOO-moh]. When these entities form in pairs, the higher-energy one is labeled with a star.

ANSWER: **molecular orbitals** [prompt on orbitals or MO; do NOT accept or prompt on "atomic orbitals"]

[E] Molecular orbitals denoted "sigma" form from a linear combination of two of these orbitals. These sphere-shaped atomic orbitals have lower energies than p orbitals.

ANSWER: **S** orbitals

[H] This variational method is often used to approximate orbitals. In this method, the wavefunction of a many-body fermionic system is approximated by a single Slater determinant.

ANSWER: **Hartree-Fock** method [or **self-consistent field** method; accept **HF** or **SCF**]

<Chemistry, Wu> [Ed. Yin]

12. **Early in his career, this man served as an emissary to a Mingo chieftain known as the "Half King." That chieftain, Tanacharison, helped this man win the Battle of Jumonville Glen. An expedition led by John Forbes culminated in this man's forces' capture of (\*) Fort Duquesne. This man led a heroic retreat at the Battle of Monongahela during the Braddock Expedition. In one battle, this general enlisted the help of the Comte de Rochambeau to defeat Charles Cornwallis. For 10 points, name this commander of the Continental Army during the Revolutionary War who was also the first U.S. president.**

ANSWER: George **Washington**

<US History, Hartung> [Ed.]

An old man looks in horror as he puts his hand over an open wound in his son's head in this artist's painting "Ivan the Terrible and His Son Ivan." For 10 points each:

[H] Name this Russian painter who depicted 11 dejected men dragging a ship in "Barge Haulers on the Volga."

ANSWER: Ilya (Yefimovich) **Repin**

[E] Several Slavic people of this profession look at musical scores and congregate in a room in one painting by Repin. Repin also created many portraits of these people, including ones of Mikhail Glinka and Modest Mussorgsky.

ANSWER: **composers** [prompt on musicians]

[M] Repin was a member of Peredvizhniki, a Russian school which was part of this broader art movement which eschewed idealism and sought to portray its subject matter faithfully.

ANSWER: **realism** [or **realist** movement]

<Painting, Guo> [Ed.]

13. **A slowed and pitched down laugh plays when a character from this game moves. Multiple hallucinations in this game feature the words "IT'S ME" flashing on the screen. During one scene in this game, a character's eyes blink rapidly in the dark while a modified version of Bizet's "Toreador Song" plays. A man in this game mentions the (\*) Bite of '87 in the first of many phone messages he leaves for the protagonist. Antagonists in this game include a chicken who wears a bib saying "let's eat!" named Chica and the pirate Foxy. For 10 points, name this horror game in which a security guard has to survive in the title pizzeria for five nights.**

ANSWER: **Five Nights at Freddy's** [or **FNAF**]

<Popular Culture, Guo> [Ed. Gayden]

This poem is contrasted with a poem in a later collection that describes "water'd heaven with their tears" and "starts [that] threw down their spears." For 10 points each:

[M] Name this poem that states "We are called by his name" after asking the title animal "Dost thou know who made thee".

ANSWER: "The **Lamb**"

[E] "The Lamb" is a poem by this British poet who wrote about the title animal "burning bright" in "The Tyger."

ANSWER: William **Blake**

[H] Poems like "The Tyger," "A Poison Tree," and "The Voice of the Ancient Bard" are found in this poetry collection by Blake, whose title contrasts an earlier collection containing "The Lamb."

ANSWER: **Songs of Experience** [prompt on "*Songs of Innocence and Experience*"; do NOT accept or prompt on "*Songs of Innocence*"]

<British Literature, Melkumian> [Ed.]

14. **After leaving this company, Sridhar Ramaswamy founded an alternative to this company called Neeva. James Damore published a memo explaining how this company was an "Ideological Echo Chamber." This company won a lawsuit over whether APIs could be copyrighted against (\*) Oracle. After the firing of Timnit Gebru, employees of this organization formed a 600-member minority union. This company's subsidiary, Waymo, is developing self-driving cars. This company faced an antitrust lawsuit over its Play Store. For 10 points, name this company that owns the largest search engine by market share.**

ANSWER: **Google** (LLC) [accept **Alphabet** Inc.]

<Current Events, Wu> [Ed.]

Answer the following about the role of *M. leprae* [M LEP-ree], the causative agent of leprosy, in the nervous system. For 10 points each:

[E] *M. leprae* destroys the myelin [MY-uh-lin] sheath that surrounds the axons of these cells, which transmit electrical signals and make up nerves.

ANSWER: **neurons** [prompt on nerve cells]

[M] Demyelination occurs after *M. leprae* infects these cells. These glial [GLEE-uh] cells produce the myelin sheath in the peripheral nervous system and are contrasted with oligodendrocytes.

ANSWER: **Schwann** [sh'vahn] cells

[H] In the central nervous system, *M. leprae* can be engulfed by these macrophages, the main type of immune cell that resides there.

ANSWER: **microglia** [mye-KROH-gee-uh]

<Biology, Wu> [Ed. Yin]

15. **Late in the first movement of a concerto by this composer, a solo French horn restates the soloist's theme by playing the rising half notes C, E-flat, A-flat, B-flat, C. A late variation in a piece by this composer "inverts" the original A minor theme into a D-flat major theme. This composer's suite (\*) *Morceaux de Fantaisie* [mor-SOH duh fan-tah-SEE], which contains his *Prelude in C-sharp minor*, features wide intervals that he was able to play due to his gigantic hands. This composer wrote four piano concertos as well as a piece for piano and orchestra based on another composer's 24th caprice. For 10 points, name this Russian composer of *Rhapsody on a Theme of Paganini*.**

ANSWER: Sergei (Vasilyevich) **Rachmaninoff** [or Sergei Vasilyevich **Rachmaninov**]

<Classical Music, Melkumian> [Ed. Bowman]

Along with future vice president Mohamad Hatta, this leader declared his country's independence following the Japanese surrender in 1945 and he resisted Dutch re-colonization efforts. For 10 points each:

[M] Name this leader who aided in organizing the Bandung Conference, a precursor to the Non-Aligned Movement. This leader was a proponent of "Guided Democracy."

ANSWER: **Sukarno** [or Kusno **Sosrodihardjo**]

[H] Sukarno formulated this series of "five principles," which included "Civilized and Just Humanity" and the "Unity of Indonesia."

ANSWER: **pancasila**

[E] One of the five principles of *pancasila* required all Indonesians to adhere to this religion's sharia law. Sukarno once taught at a school run by Muhammadiyah, an organization that practices this religion.

ANSWER: **Islam** [accept **Muslim** religion]

<World History, Hartung> [Ed. Nageswaran]

16. **One poet from this country states, "the future slips imperceptibly away" at the end of a poem that describes "gray rats [that] scurry over broken tiles." That poet from this country asks, "How can a soldier dare to complain?" in another poem. The speaker of one poem from this country states, "At sixteen, you departed" and hopes to "meet again, deep in the Milky Way" in a bad translation by (\*) Ezra Pound. The speaker of another poem from this country describes lowering their head and missing their home in a poem describing frost on the ground, "Quiet Night Thought." Du Fu and Li Bai wrote during, for 10 points, what country's Tang Dynasty?**

ANSWER: **China** [or **Zhōngguó**; accept **Tang** dynasty or **Táng** cháo] (The first poem is "Jade Flower Palace" and the second is "Song of the Wagons," both by Du Fu)

<World Literature, Melkumian> [Ed.]



Despite its first playoff win in over 25 years, this team ended the 2020 season on a bitter note after losing to the Kansas City Chiefs in the AFC Championship. For 10 points each,

[E] Name this NFL team that plays its home games in Highmark Field in upstate New York and is quarterbacked by Josh Allen.

ANSWER: **Buffalo Bills** [accept either underlined portion]

[M] During the 2020 offseason, the Bills traded for this former Minnesota Vikings wide receiver who went on to lead the league in receiving yards that same year.

ANSWER: Stefon **Diggs** [or Stefon Mar'sean **Diggs**]

[H] Despite having appeared in four consecutive Super Bowls in the 1990s, the Bills lost all four while led by this Hall of Fame quarterback.

ANSWER: Jim **Kelly** [accept James Edward **Kelly**]

<Sports, Peela> [Ed.]

17. **The routiers practiced this profession during the Hundred Years War. The leader of the White Company, John Hawkwood, had this profession. A member of this profession founded the Sforza Dynasty in Milan. Many members of this profession deserted during Charles VIII's 1494 invasion, leading (\*) Niccolò Machiavelli to argue against their employment in *The Prince*. In Renaissance Italy, members of this profession were known as *Condottieri*. For 10 points, name this profession whose practitioners are hired to fight.**

ANSWER: **mercenaries** [or **mercenary**; accept answers describing **soldiers for hire**; accept **Condottieri** or **routier** before "*Condottieri*"; prompt on **soldiers** or **auxiliary** or **army**]

<European History, Gayden> [Ed.]

The Casa Grande towers in this estate were inspired by a Church that its patron saw in Ronda, Spain. For 10 points each:

[H] Name this estate designed by Julia Morgan in San Simeon, California.

ANSWER: **Hearst Castle** [accept La **Cuesta Encantada** or The **Enchanted Hill**]

[E] Hearst Castle served as the inspiration for this film's mansion of Xanadu. The title newspaperman whispers the word "rosebud" at the end of this Orson Welles film.

ANSWER: ***Citizen Kane***

[M] Muralist Camille Solon designed the interior of a "roman" example of these structures in Hearst Castle.

Singapore's Marina Bay Sands contains an "infinity" one of these structures on its roof.

ANSWER: swimming **pools** [accept infinity **pools**; do NOT accept or prompt on "baths"]

<Architecture, Gayden> [Ed.]

18. **The Bekenstein-Hawking formula states that a black hole's value for this quantity is proportional to the surface area of its event horizon. The "residual" form of this quantity is the amount of it held by a non-crystalline solid at absolute zero. In an isolated system, a reaction is spontaneous only if this quantity (\*) increases. This quantity is defined as Boltzmann's constant times the natural log of the number of microstates. Gibbs free energy equals enthalpy minus the product of temperature and this quantity. For 10 points, name this measure of disorder in a system.**

ANSWER: **entropy**

<Chemistry, Bajji> [Ed. Yin]

An essay in this collection criticizes a film adaptation of *Carmen* for not properly portraying black living conditions in America. For 10 points each:

[H] Name this 1955 collection whose essay “Many Thousands Gone” criticizes the stereotypically violent black protagonist of its namesake novel.

ANSWER: Notes of a Native Son [do NOT accept or prompt on “*Native Son*”]

[M] *Notes of a Native Son* is by this writer, who urged his nephew to go beyond the societal constraints imposed by white men in an open letter titled “My Dungeon Shook” from his collection *The Fire Next Time*.

ANSWER: James Baldwin [or James Arthur Baldwin]

[E] Baldwin’s essay “Everybody’s Protest Novel” likens the protagonist of *Native Son* to a modern version of this character. Richard Wright wrote a collection titled for the “children” of this man created by Harriet Beecher Stowe.

ANSWER: Uncle Tom [accept Uncle Tom’s Cabin or “Uncle Tom’s Children”]

<US Literature, Melkumian> [Ed. Gayden]

19. **It’s not food related, but the song “Here I Am to Worship” begins with this word and thus refers to imagery from John 8:12, in which Jesus promises this thing “of life” to his followers. George Fox analogized the presence of Jesus in one’s heart as the “inner” form of this thing, which is the first thing described as “good” in the (\*) Bible. After comparing his disciples to salt and this other thing, Jesus calls them to show this thing to the world so that a “city set on a hill” cannot be hidden. Because Jesus is the source of this thing, New Jerusalem will have no need for the sun or the moon. For 10 points, God created what concept on the first day by separating it out from darkness?**

ANSWER: light [accept light of the world; accept inner light]

<Religion, Suh> [Ed.]

This activist was labeled the “most dangerous woman in America” for her role in organizing a 1902 strike in West Virginia. For 10 points each:

[H] Name this progressive activist who led a “children’s march” of underage silk workers to protest the lack of enforcement of child labor laws in 1903. She names a progressive political magazine.

ANSWER: Mother Jones [or Mary G. Harris Jones]

[E] Mother Jones primarily organized strikes in this Appalachian industry. Workers in this industry often developed lung disease at higher rates due to their time spent underground.

ANSWER: coal mining [accept coal miners or coal industry]

[M] Mother Jones helped found this labor union with Big Bill Haywood. Members of this union were known as “wobblies.”

ANSWER: Industrial Workers of the World [or IWW; or the Wobblies]

<US History, Gayden> [Ed.]

20. **This play’s protagonist claims to have lost faith in “wonderful things” happening. Lu Xun wrote a pessimistic essay about the aftermath of this play’s final scene. This play’s protagonist tells the maid Helen to hide a Christmas tree from the children until it is decorated. In this play, a (\*) tuberculosis-ridden banker discovers the protagonist’s forging of her father’s signature to finance a trip to Italy, leading him to blackmail her. This play’s central character dances the tarantella at a ball tries to convince her husband not to fire Krogstad. Nora Helmer leaves her husband Torvald Helmer at the end of, for 10 points, what Henrik Ibsen play?**

ANSWER: *A Doll’s House* [or *Et Dukkehem*; accept *A Doll House*]

<European Literature, Gayden and Melkumian> [Ed.]

This region's Potosí Department contains the world's largest salt flats, the Salar de Uyuni. For 10 points each:

[M] Name this extensive region of high plateau in the Andes, the second-largest highland plateau after the Tibetan Plateau. Lake Titicaca is located in this plateau.

ANSWER: **Altiplano** [accept **Collao**]

[E] The Altiplano lies in Peru and this landlocked nation, whose two capital cities are La Paz and Sucre.

ANSWER: **Bolivia** [or Plurinational State of **Bolivia**]

[H] The Altiplano is home to this animal, the wild ancestor of the alpaca, whose wool is especially valuable due to its fine fibers and warmth. This animal prefers higher altitudes than the guanaco, the wild ancestor of the llama.

ANSWER: **vicuña** [vih-KOON-nyuh]

<Geography, Madugula> [Ed. Ma]