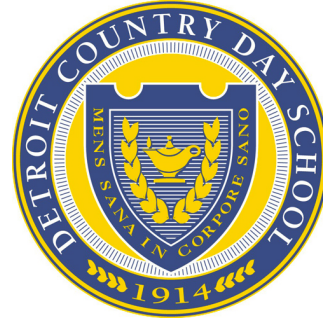


## Detroit Country Day Academic Regular Tournament II

### Packet 1

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Special thanks to Neil Gurram



1. **A zoomorphic one of these structures with a single pylon was designed to resemble King David’s harp and is in Jerusalem. Michel Virlogeux and Norman Foster designed a structure of this type that extends into the clouds in Millau, France. An Art Deco one of these structures designed by Joseph Strauss is painted (\*) International Orange. A Viaduct is one of these structures supported by a series of arches, while steel wire cables support their “suspension” varieties. For 10 points, name these man-made structures that cross rivers.**  
ANSWER: **bridges** [accept specific types of bridges such as **viaducts** or suspension **bridges** before they are read]  
<Architecture, Gayden> [Ed.]

One of these bodies of water is Mweru, which is the term for them in the local language. For 10 points each:  
[E] Name these bodies of water. A “great” group of them in the Eastern African Rift includes Victoria and Tanganyika.

ANSWER: **lakes** [accept African Great **Lakes**]

[H] The Great Lakes of Africa contain this “Killer Lake.” Lava from the eruption of Mount Nyiragongo in 2002 made its way to this lake’s surface, raising fears of a limnic eruption.

ANSWER: Lake **Kivu**

[M] Lake Kivu is in this river’s watershed by means of its primary outflow, the Ruzizi River. This river’s unparalleled depth could make the proposed Grand Inga Dam the largest power station in the world.

ANSWER: **Congo** River

<Geography, Madugula> [Ed.]

2. **This novel’s narrator begins it by noting, “All of this happened, more or less.” In this novel, a barbershop quartet called the “Four-eyed Bastards” performs on a plane that crashes into a mountain. An English teacher in this novel is shot for stealing a teapot; that character is (\*) Edgar Derby. In this novel, deaths are punctuated with the phrase “so it goes.” One character in this novel loves the science fiction author Kilgore Trout, and another is abducted by Tralfamadorians after becoming “unstuck in time.” For 10 points, name this novel in which Billy Pilgrim witnesses the firebombing of Dresden, written by Kurt Vonnegut.**  
ANSWER: ***Slaughterhouse-Five*** [or ***The Children’s Crusade: A Duty Dance with Death***]  
<US Literature, Joshi> [Ed.]

The Tafel equation relates the rate of an electrochemical reaction to this quantity. For 10 points each:

[H] Name this quantity that describes the number of volts greater than expected at which a reaction occurs.

ANSWER: **overpotential** [accept **overvoltage**; do NOT accept or prompt on “potential” or “voltage”]

[E] Overpotential is not accounted for by this equation, which gives a cell’s reduction potential in terms of the standard potential, Faraday’s constant, and the concentration of each ion.

ANSWER: **Nernst** equation

[M] All Standard reduction potentials are measured based on a reference electrode for this element. By definition, the standard reduction potential of this element is 0.

ANSWER: **hydrogen** [or **H**]

<Chemistry, Wu> [Ed.]

3. **Local oligarchs in this non-Greek country divided power through the coronelism system. Zumbi led a revolt in one of this modern-day country’s quilombos. The agrarian elites of two regions in this country represented the interests of coffee and (\*) dairy respectively. The Cry of Ipiranga called for this country’s independence. The Golden Law granted freedom to this country’s slaves in 1888. After overthrowing his father Joao VI, Dom Pedro I became this country’s first independent ruler. For 10 points, name this South American country that was once governed by Portugal from Rio de Janeiro.**

ANSWER: **Brazil** [accept Kingdom of **Brazil**]

<World History, Hartung> [Ed.]

This character resents wearing the “Veil.” For 10 points each:

[H] Name this character who states that “freedom had a price” upon seeing her grandmother leave in the work in which she appears. This character’s uncle Anoosh is arrested and accused of being a Soviet spy.

ANSWER: **Marjane Satrapi** [or **Marji**; accept any underlined portion]

[M] Marji is the protagonist of this graphic memoir set during the Islamic Revolution.

ANSWER: **Persepolis**

[E] The author of *Persepolis*, Marjane Satrapi, is from this country. Azar Nafisi’s *Reading Lolita in Tehran* is set in this country.

ANSWER: **Iran** [or Islamic Republic of **Iran**; prompt on **Persia**]

<World Literature, Melkumian> [Ed.]

4. **Some of these people are forbidden from traveling during a three-month wet season known as *Vassa*. The official clothing of these people is known as *kasaya*, which is named after a brown or saffron dye. A word denoting these people literally means “beggar,” and female members of this group are called “*bhikkhuni*.” These people may strike a wooden fish to keep rhythm while (\*) chanting. The first of the three baskets of the Tripitaka relates rules for these people. The community of these people is known as “*Sangha*.” For 10 points, name these people who often shave their heads and may wear orange robes if they are from the Theravada school.**

ANSWER: **Buddhist monks** [accept **bhikkhuni** or **Sangha** until they are read; prompt on **Buddhists**; prompt on **monks** by asking, “of what religion?”]

<Religion, Suh> [Ed.]

Basile Bouchon designed a semi-automated one of these devices that used warp threads to control perforated paper tape. For 10 points each:

[H] Name these devices, whose “Jacquard” variety were used by Lyonnese *canuts*.

ANSWER: **looms** [accept power **loom**]

[M] After Edmund Cartwright’s 1784 invention of the power loom in England, this group of workers began to angrily destroy new textile-making technology. The Frame-Breaking Act was passed to discourage this group.

ANSWER: **Luddites**

[E] The power loom, as well as other devices such as James Watt’s steam engine were invented during this period. This period saw the decline of the cottage industry in favor of larger-scale factory production.

ANSWER: First **Industrial Revolution** [do NOT accept or prompt on “Second Industrial Revolution”]

<European History, Gayden> [Ed.]

5. **An isoprenoid one of these compounds is synthesized from xanthoxin [zan-THAHK-sin] in the MEP [M-E-P] pathway. One of these compounds stored in the form of ACC is produced from methionine [meh-THYE-uh-noon] in the Yang cycle. A class of these compounds that undergoes polar transport may activate proton pumps in the acid growth hypothesis. Some of these compounds like (\*) cytokinins play roles in determining apical dominance. Examples of these compounds include ethylene [ETH-il-teen], auxins, and gibberellins [jib-uh-RELL-inz]. For 10 points, name these signaling compounds that regulate plant growth.**

ANSWER: **plant hormones** [or **phytohormones**; prompt on **hormones** alone before “plant” with “for what organisms?”; prompt on specific ones like **abscisic acid** or **ethylene** or **auxins** by asking, “which belongs to what general group of compounds?; accept **hormones** after “plant”]

<Biology, Bajji> [Ed. Yin]

Biagio da Cesena criticized one depiction of this scene for its excessive nudity, leading the artist to paint a snake biting Cesena’s genitals. For 10 points each:

[H] A lily and a red-hot sword flank the red-cloaked central figure of Hans Memling’s version of what biblical scene?

ANSWER: The **Last Judgment**

[E] This artist showed damned souls being tortured in the center and right of his version of The Last Judgment.

Similarly hellish scenes are present in this artist’s work *The Garden of Earthly Delights*.

ANSWER: Hieronymous **Bosch** [accept Jheronimus **van Aken**]

[M] Both Memling and Bosch’s depictions are examples of these artworks, which can be folded open and closed.

These artworks often served as altarpieces.

ANSWER: **triptychs** [TRIP-ticks]

<Painting and Sculpture, Guo> [Ed. Sun]

6. **This country’s Antamina and Las Bambas mines reopened in 2022 after negotiations regarding this country’s copper industry, the second-largest in the world. This country’s right-wing Popular Force party was defeated in a June 2021 election by a former schoolteacher from the Free [this country] party who wears an iconic large straw hat. This country’s popular former president Martín (\*) Vizcarra was impeached in 2020. Efforts to impeach this country’s current president, Pedro Castillo, failed shortly after his defeat of Keiko Fujimori. For 10 points, name this Andean country governed from Lima.**

ANSWER: **Peru** [or Republic of **Peru** or República del **Perú**; accept **Piruw Ripuwlika** or **Piruw Suyu**]

<Current Events, Gayden> [Ed.]

A treatise on this art form describes the absurdity of a painter attaching a human head to a horse's neck. For 10 points each:

[H] An epistle dedicated to Lucius Calpurnius Piso encourages for what art form to be done *in medias res*?

ANSWER: writing **poetry** [or "Ars **Poetica**" [or "The Art of **Poetry**"; prompt on writing or storytelling]

[E] Centuries later, Paul Verlaine was inspired by Horace to write his own "Ars Poetica." Paul Verlaine is perhaps best known for a poem titled for the "sad and beautiful" light of this object, titled "Clair de [this celestial object]."

ANSWER: the **Moon** [or **lune** or **luna**; accept "Clair de **Lune**"]

[M] Paul Verlaine was a lover of this other poet who wrote *A Season in Hell*. This French Symbolist poet described "going down impassive rivers" and seeing "yelping redskins" in "The Drunken Boat."

ANSWER: Arthur **Rimbaud** [or Jean Nicolas Arthur **Rimbaud**]

<European Literature, Melkumian> [Ed. Gayden]

7. **After being jailed following this event, one participant was visited in Woodstock jail by Victor Berger. Clarence Darrow quit his job in order to defend the leaders of this event. The government response to this event was dubbed "Government by Injunction" by Governor John Peter Altgeld, who believed Attorney General (\*) Richard Olney had badly misinterpreted the Sherman Antitrust Act. Mail service was heavily disrupted by this event, which was prompted by wage cuts due to the Panic of 1893. Eugene Debs led, for 10 points, what 1894 railroad strike against the namesake Palace car manufacturer?**

ANSWER: **Pullman** Strike [accept answers indicating the 1894 **strike** against the **Pullman** Palace Car Company]

<US History, Gayden> [Ed.]

Answer the following about spanning trees. For 10 points each:

[E] Spanning trees are trees that connect every node of these structures. "Weighted" examples of these structures assign a value to each of their edges and nodes.

ANSWER: **graphs** [accept weighted **graphs**]

[H] This algorithm, named for an American, finds a minimum spanning tree in a connected graph by iteratively adding to the tree the edge with the smallest weight. It is contrasted with Prim's algorithm.

ANSWER: **Kruskal's** algorithm [or **Kruskal's** (minimum) spanning tree algorithm]

[M] Kruskal's algorithm and similar spanning tree algorithms are referred to by this adjective, which means they make the locally optimal choice at each step.

ANSWER: **greedy** (algorithms)

<Computer Science, Yang> [Ed.]

8. **A character created by this author shoots a wounded horse out of mercy and becomes homesick after spotting a cherry tree. A refugee trades his passport and two tickets to America in exchange for a stranger to listen to his life story in this author's novel *The Night in Lisbon*. In another novel by this author, the bedwetting habits of (\*) Tjaden are cured by a bunking arrangement devised by Corporal Himmelstoss. *The Road Back* is the sequel to a novel by this author in which the schoolmaster Kantorek convinces Paul Baumer and his friends to enlist in World War One. For 10 points, name this German author of *All Quiet on the Western Front*.**

ANSWER: Erich Maria **Remarque**

<European Literature, Gayden> [Ed.]

Sunday is a popular day in popular music. For 10 points each:

[E] This pop band included “Sunday Morning” on their debut album *Songs About Jane*, although they’re more famous for songs like “Girls Like You” and “Memories.”

ANSWER: **Maroon 5**

[H] Another song named “Sunday Morning” appears on this band’s 1995 album *Tragic Kingdom*. This Gwen Stefani-fronted rock band included “Just a Girl” and “Don’t Speak” on the same album.

ANSWER: **No Doubt**

[M] This rock & roll band’s lead singer Bono recalled “bodies strewn across the dead end street” in their song “Sunday Bloody Sunday.”

ANSWER: **U2**

<Popular Music, Joshi> [Ed. Gayden]

9. **One of these devices causes a Berry phase in the wavefunction of a charged particle in the most common form of the Aharonov-Bohm effect. When these devices are used to block high-frequency alternating current, they are known as “chokes.” The voltage across these devices is proportional to the time derivative of current. Pairs of these devices with iron cores can (\*) step up or step down voltage in a transformer. One of these devices and a capacitor form an LC circuit. The strength of these devices is measured in henries. For 10 points, name these devices that store energy in a magnetic field and often consist of coils of wire.**

ANSWER: **inductors** [accept **solenoids**; accept **chokes** before it is read; prompt on **transformers** before it is read; prompt on wire **coils**]

<Physics, Wu> [Ed.]

This work’s second part is organized into several “treatises” describing the ethics of man. For 10 points each,

[M] Name this unfinished work that discusses the teachings of the Catholic Church. Each article in this work begins with a series of objections followed by a counterstatement beginning with the phrase “sed contra”.

ANSWER: **Summa Theologica** [accept **Summa Theologiae**]

[E] *Summa Theologica* compiled five arguments supporting this idea, including the teleological argument. Atheists reject this idea.

ANSWER: existence of **God** [accept equivalents such as **God** existing]

[H] *Summa Theologica* introduced this principle, which holds that a good deed with a good intention is justifiable as long as the positive outcomes outweigh the negative ones.

ANSWER: **double effect** [accept **double-effect** reasoning or equivalents that mention **double effect**]

<Philosophy, Peela and Yang> [Ed. Golfinos]

10. **During his rookie season, a fan drove this player to a game after this player gave his pocket money to family. This player jumped over Tim Hardaway while dunking an alley-oop in a 2017 game against the Knicks. In another game, this player threw a pass meant for teammate Malcolm Brogdon at (\*) James Harden’s head. During the 2021 playoffs, opposing fans used a countdown to taunt this player’s free throw routine. This player led his team to four straight wins after being down 0-2 in the 2021 NBA Finals, in which he was named MVP. For 10 points, name this Milwaukee Bucks power forward, known as the “Greek Freak.”**

ANSWER: **Giannis Antetokounmpo** [accept either underlined portion; accept **“Greek Freak”** before it is read]

<Sports, Guo> [Ed.]

A political cartoon shows this senator seated in the stern of a boat being rowed up “salt river” by an opponent. For 10 points each:

[H] Name this Michigan senator who lost as the Democratic candidate in the Election of 1848, in part due to the presence of the Free Soil Party. As Secretary of War, he helped implement the Indian Removal Act.

ANSWER: Lewis **Cass**

[E] Lewis Cass was defeated by Zachary Taylor, who belonged to this political party. This party shared its name with the anti-monarchist British party that opposed the Tories.

ANSWER: **Whig** Party [or **Whigs**]

[M] Martin Van Buren ran as the Free Soil Party’s candidate because he opposed Lewis Cass’ support for this policy. “Bleeding Kansas” was caused by this policy’s implementation by the Kansas-Nebraska Act.

ANSWER: **popular sovereignty**

<US History, Gayden> [Ed.]

11. **One of this character’s subordinates bemoans his tarnished reputation and laments, “I have lost the immortal part of myself!” after being coerced into a fight. This character cries, “Farewell the tranquil mind, farewell content!” upon discovering his wife’s supposed infidelity. This man defends himself against allegations of witchcraft after being accused of “making the (\*) beast with two backs” with Brabantio’s daughter. After he discovers a handkerchief, this man orders the execution of Cassio. This character entrusts Iago to protect his wife Desdemona while on a military campaign. For 10 points, name this title “Moor of Venice” of a Shakespeare play.**

ANSWER: **Othello** [or *The Tragedy of Othello, the Moor of Venice*; prompt on the Moor of Venice]

<British Literature, Hartung> [Ed.]

This process is often compared to a ball rolling through a hill. For 10 points each:

[M] Name this process, where a particle crosses a classically-insurmountable barrier. George Gamow [GAM-off] used this process to explain the mechanism of alpha decay.

ANSWER: quantum **tunneling**

[E] In alpha decay, an element's atomic number decreases by this number. This is also the atomic number of helium, whose nucleus is an alpha particle.

ANSWER: **two**

[H] In beta-minus decay, a proton releases a virtual one of these particles that decays into a neutron, electron, and antineutrino. These bosons [BOH-zahns] have a charge of plus-or-minus one.

ANSWER: **W** bosons [accept **W**-minus boson]

<Physics, Wu> [Ed.]

12. **Mozart’s deep hatred for this instrument is detailed in letters he sent to his father about his G major *Concerto no. 1* for this instrument. The only piece Mozart ever wrote featuring a harp is his C major double concerto for harp and this instrument. This instrument is the first to play the melody after the snare drum introduction in (\*) Maurice Ravel’s *Bolero*. This instrument plays a serene E major melody to open the “Morning Mood” from Grieg’s *Peer Gynt*. Players of this instrument blow across its embouchure hole to produce sound. For 10 points, name this transverse woodwind instrument, a cousin of the piccolo.**

ANSWER: **flute** [accept transverse **flute**; do NOT accept or prompt on “piccolo”]

<Classical Music, Bowman> [Ed.]

This politician proposed a 2-year ban on foreign home buyers in Canada if he was re-elected. For 10 points each:  
[E] Name this current Prime Minister of Canada.

ANSWER: **Justin** (Pierre James) **Trudeau** [prompt on Trudeau; do NOT accept or prompt on “Pierre Trudeau”]

[M] In an effort to win a majority, Trudeau controversially called a snap election in August by asking Mary May Simon, who holds this position, to dissolve parliament. This position serves as the Queen’s official representative in the Canadian government.

ANSWER: **Governor General** of Canada

[H] Trudeau’s Liberals received fewer votes than the Conservative party, who were led by this man. Candice Bergen became interim leader after this man was voted out as Conservative leader in February 2022.

ANSWER: Erin (Michael) **O’Toole**

<Current Events, Chapman> [Ed.]

13. **This metal and titanium are found in a reagent that converts carbonyl groups to methylene [MEH-thil-een] groups, called Tebbe’s [TEH-bay’s] reagent. An oxide of this metal and silicon makes up high-surface-area compounds used for adsorption, called zeolites. The Deville [deh-VEEL] process was once used to produce this metal’s oxide, which is now made using the (\*) Bayer process. This metal’s oxide is dissolved in cryolite, then electrolyzed, to produce this metal in the Hall-Héroult [HALL hair-OHLT] process. Like gallium, this metal’s primary ore is bauxite. For 10 points, name this metal that replaced tin as the constituent of lightweight “foil.”**

ANSWER: **aluminum** [or **aluminium** or **Al**; accept **aluminum** oxide or foil]

<Chemistry, Wu> [Ed.]

One member of this literary family was renamed from Cain to Henry after murdering his brother, Abel. For 10 points each:

[H] Name this family whose patriarch, George, invented items like the lever and the wheel. This family faces extinction from a wall of ice moving south from Canada.

ANSWER: **Antrobus** family

[M] The Antrobus family appears in this playwright’s *The Skin of Our Teeth*. In another of his plays, a ghost character asks “Do any human beings realize life while they live it?”

ANSWER: Thornton (Niven) **Wilder**

[E] The aforementioned character is Emily Webb, who appears in this Wilder play set in the fictional town of Grover’s Corners and narrated by the Stage Manager.

ANSWER: **Our Town**

<U.S. Literature, Joshi> [Ed.]

14. **Suetonius describes how this ruler was pelted with turnips while suppressing a riot as governor of Africa. This ruler appointed Tacitus’ father-in-law Agricola as governor of Britannia. After winning the Second Battle of Bedriacum, this ruler consolidated his power over his rival Vitellius. While serving alongside his son in the Great (\*) Jewish Revolt, this ruler captured the historian Josephus. After exclaiming “Dear me! I think I am becoming a God!” on his deathbed, this ruler was succeeded by his son Titus. This ruler’s ascension ended the Year of the Four Emperors. For 10 points, name this Roman emperor who founded the Flavian Dynasty.**

ANSWER: **Vespasian** [or Titus Flavius **Vespasianus**]

<Ancient History, Hartung> [Ed.]

This musician worked with her frequent collaborator Rachel Elkind on the score to *The Shining*. For 10 points each:  
[H] Name this transgender American musician who recorded the albums *Switched-On Bach* and *The Well-Tempered Synthesizer* using an early synthesizer designed by Robert Moog.

ANSWER: Wendy **Carlos**

[M] Carlos adapted the “Bouree” and “Air” movements from this set of three suites in *The Well-Tempered Synthesizer*. These suites by Georg Frideric Handel were intended to be played on the River Thames for King George I.

ANSWER: **Water Music**

[E] *Switched-On Bach* and *The Well-Tempered Synthesizer* were part of Carlos’ general project to adapt music from this period. This musical period lasted from 1600 to about 1720 and includes G. F. Handel and J. S. Bach.

ANSWER: **Baroque** period [or **Baroque** era]

<Classical Music, Bowman> [Ed.]

15. **This region contains a 30-mile-wide blue geological dome in its Adrar Plateau. Storms from this region's Bodélé Depression are a major source of nutrients for the Amazon Rainforest. This region is theorized to have been a prehistoric land bridge for many species in its namesake “pump” theory. This region’s highest point, (\*) Emi Koussi, is in its Tibesti Mountains. This desert contains ergs like the Great Sand Sea. This region is bounded to the south by the semiarid Sahel region. The world’s largest hot desert is, for 10 points, what desert that spans North Africa?**

ANSWER: **Sahara** Desert

<Geography, Gayden> [Ed.]

Many people tried to kill Heracles, though most were not successful. For 10 points each:

[H] Eurystheus tried to have Heracles killed by sending him on the Ten Labors. However, when Heracles improbably succeeded in his labors, the terrified Eurystheus often responded by doing this specific action.

ANSWER: **hide** in a wine**jar** [prompt on just **hiding** by asking “where?”; accept **hide underground**; accept reasonable equivalents like **pithos**, **jug**, **barrel**, or **urn** in place of winejar]

[E] King Busiris [**bue-SYE-russ**] of this region tried to kill Heracles as a sacrifice, but was himself killed by Heracles. Busiris’s grandfather was the Nile River, which still flows through this region.

ANSWER: **Egypt**

[M] Heracles killed the centaur Nessus with a poisoned arrow, and in revenge, the dying Nessus tricked Deianira into giving Heracles one of these items. That item caused Heracles such pain that he self-immolated.

ANSWER: **shirts** [accept **tunics** or **robes** or any upper body garment; prompt on **clothing** or **apparel**]

<Mythology, Suh> [Ed.]

16. **The speaker decides “divinity must live within” while enjoying “Coffee and oranges” in a poem by this author that claims, “Death is the mother of beauty.” In another poem by this author, a sheet with “embroidered fantails” covers all but a woman’s protruding “horny feet.” The speaker of one poem by this author berates the (\*) “thin men of Haddam” for overlooking a creature whose eye is the “only moving thing” among “twenty snowy mountains.” This author addressed the “roller of big cigars” in a poem from his collection *Harmonium*. For 10 points, name this modernist poet of “The Emperor of Ice Cream” and “Thirteen Ways of Looking at a Blackbird.”**

ANSWER: Wallace **Stevens**

<US Literature, Gayden> [Ed.]



Senator Abraham Ribicoff condemned the police's so-called "Gestapo tactics" during this event. For 10 points each:  
[M] Name this event in Chicago where protesters tried to stop Hubert Humphrey's nomination.

ANSWER: **1968 Democratic National Convention** [or **1968 DNC**; prompt on answers describing the Chicago Democratic National Convention or Chicago DNC by asking, "in what year?"]

[E] The protestors were angry at Hubert Humphrey's nomination due to his long-standing support for this war. The United States fully exited this conflict following the fall of Saigon.

ANSWER: **Vietnam** War

[H] Many anti-war protestors supported this Minnesota Senator instead of Hubert Humphrey. Young supporters of this candidate cut their hair to "go clean" for this candidate.

ANSWER: Eugene (Joseph) **McCarthy** [prompt on "Get clean for gene"]

<US History, Li> [Ed. Nageswaran]

17. **A series of experiments on this phenomenon varied the number of "true partners." In 1935, this phenomenon was demonstrated by measuring the autokinetic effect in a dark room. The "informational" and "normative" types of this phenomenon were studied in an experiment at Swarthmore College where participants were shown cards labeled A, B, or C. In that experiment, (\*) confederates intentionally misidentified the length of a line. Solomon Asch famously studied, for 10 points, what phenomenon in which individuals alter their behavior to match group norms?**

ANSWER: **conformity** [or **conforming**; accept Solomon Asch **conformity** (experiment); do NOT accept or prompt on "obedience"]

<Social Science, Melkumian> [Ed. Gayden]

A record label from this city helped produce hits like The Temptations' "My Girl." For 10 points each:

[E] Name this city where Berry Gordy founded Motown Records, whose name is derived from this Michigan city's nickname of "Motor City."

ANSWER: **Detroit**

[M] This Motown artist sang "I've been really tryin', baby" at the beginning of his song "Let's Get It On." He collaborated with Tammi Terrell on the album *United*, which includes the single "Ain't No Mountain High Enough."

ANSWER: Marvin **Gaye**

[H] Marvin Gaye's controversial lyrics inspired the style of this later artist behind "Together Again" and "Rhythm Nation." This artist collaborated with her brother on "Scream," which appeared on his album *HIStory: Past, Present and Future, Book I*.

ANSWER: **Janet Jackson** [prompt on **Jackson**; do NOT accept or prompt on "Michael Jackson"]

<Misc. Music, Gayden> [Ed.]

18. **Dark gray figures surround a man set ablaze in a work of this type located in a hospital complex. A headless Jupiter sits opposite a headless statue of Caesar in another work of this type. One of these works depicts a row of robed skeletons watching what may be an abortion; that work, located at Dartmouth's Baker Library, is titled *The* (\*) *Epic of American Civilization* and was painted by José Orozco. One of these artworks depicts workers at a Car Assembly Line, and is located in the Detroit Institute of Art. Diego Rivera's *Man at the Crossroads* is an example of, for 10 points, what artworks that are painted on walls?**

ANSWER: (Mexican) **murals** [accept **murals** by José Orozco; accept **murals** by Diego Rivera after "headless" is read]  
<Painting, Gayden> [Ed.]

These compounds may dimerize [DYE-mer-eye'z] in the presence of UV light, which is fixed by their namesake “excision repair.” For 10 points each:

[M] Name these compounds that can polymerize when their sugar rings and phosphate groups join to form “backbones.”

ANSWER: **nucleotides** [do NOT accept or prompt on “nucleic acids” or “nucleosides” or “nucleobases”]

[E] This molecule consists of two polynucleotide chains coiled around each other in a double helix. This molecule is wrapped around histones [HISS-tohnz] and contains genetic information.

ANSWER: **DNA** [or **deoxyribonucleic acid**]

[H] The dinucleotide molecules NAD<sup>+</sup> [N-A-D-plus] and FAD [F-A-D] are “carriers” of these chemical species that move them out of the Krebs cycle.

ANSWER: **electrons** [accept **electron** pairs or **electron** carriers]

<Biology, Melkumian> [Ed. Yin]

19. A “cold spot” in this structure might be explained by the Eridanus Supervoid. The movement of Earth in relation to this structure causes its namesake “dipole.” Thomson scattering in this structure causes its polarization and E-modes, while the POLARBEAR [polar bear] experiment studies its B-modes. This structure is distorted by dense galaxy clusters via inverse Compton scattering in the (\*) Sunyaev-Zeldovich [soon-YAI-ev zel-DOH-vich] effect. This structure produced during the recombination epoch [EH-puck] approximates a blackbody with a temperature of 2.7 Kelvin. For ten points, name this structure, the leftover radiation from the Big Bang.

ANSWER: **cosmic microwave background** radiation [or **CMBR**; prompt on **cosmic background** radiation or **CBR**]

<Astronomy, Bajji> [Ed.]

This leader outlined socialist policies in the tract *The Common Man's Charter* and he took power after overthrowing Kabaka Mutesa II. For 10 points each:

[H] Name this leader who was deposed in the Luwero War after taking power for the second time. This politician initiated the “Move to the Left,” which nationalized 60% of his country’s businesses.

ANSWER: (Apollo) Milton **Obote**

[E] Milton Obote was a leader of this African country once led by Idi Amin from Kampala.

ANSWER: **Uganda** [or Republic of **Uganda**]

[M] Obote's second rise to power occurred after Idi Amin was deposed by this country’s leader Julius Nyerere. Nyerere described his policy of *ujamaa* for this nation in his Arusha Declaration.

ANSWER: **Tanzania** [or United Republic of **Tanzania**]

<World History, Hartung> [Ed.]

20. While working with this organization, Fabian von Bellingshausen made the first known sighting of Antarctica. This organization scored an early victory at the Battle of Gangut, and it was first headquartered at Taganrog. After receiving misleading reports that an enemy was near, this force mistakenly fired upon a flotilla of fishing boats during the (\*) Dogger Bank Incident. A subset of this military force was scuttled during the Siege of Sevastopol, dashing its hopes of controlling the Black Sea. Peter the Great founded, for 10 points, what maritime force headquartered in St. Petersburg?

ANSWER: Imperial **Russian Navy** [do NOT accept or prompt on “Soviet Navy”]

<European History, Pavlou> [Ed. Gayden]

This author describes seeing the “same crooked worm” at the end of his poem “The force that through the green fuse drives the flower.” For 10 points each:

[M] Name this poet who wrote about being “green and carefree” and “famous among the barns” in a poem that states “time held me green and dying.”

ANSWER: Dylan (Marlais) **Thomas** [The poem is “Fern Hill”]

[E] This villanelle by Dylan Thomas urges “gray men, near death” to “rage, rage against the dying of the light.”

ANSWER: **“Do not go gentle into that good night”**

[H] Although they have no control over their fates, “Do not go gentle into that good night,” describes “Grave men, near death” whose “blind eyes could blaze like [these things] and be gay.”

ANSWER: **meteor**s [accept “blind eyes could blaze like **meteors** and be gay”]

<British Literature, Melkumian> [Ed. Gayden]