

GATA Format Set
Sample Round

Tossups

1. One way of measuring this quantity is through the Rankine scale. The Ideal Gas Law usually represents this property as multiplied by the ideal gas constant and the amount, while Charles' Law varies this quantity inversely with volume. For ten points, name this quantity, a measure of the average kinetic energy of the particles in a body, measured in both Kelvin and Fahrenheit degrees.

ANSWER: **temperature** [accept “absolute **temperature**”; do not accept “heat”]

2. This artist painted a curved brown path in his *Wheatfield With Crows*, and he included two chairs in a painting of a blue-walled room. This painter of the *Bedroom in Arles* also put a blue spire in the middle ground of a work with undulating cypresses and blue hills. For ten points, name this painter noted for his sunflowers and the *Starry Night*, who is most famous for cutting off his ear.

ANSWER: Vincent **Van Gogh**

3. This is the only one of the four fundamental forces without a known force carrier particle. Einstein described it as a curvature in spacetime, while this interaction's universal law describes its force as proportional to the masses of two objects and inversely proportional to the square of the distance between them. For ten points, name this fundamental interaction explained by Isaac Newton which attracts masses to one other.

ANSWER: **gravity** [or **gravitation**]

4. This woman was the sister of Stheno and Euryale, who were afflicted by the same curse. That curse came after this woman had an affair with Poseidon in Athena's temple. This woman's death came after the son of Zeus and Danaë appeared with a reflective shield. For ten points, name this Gorgon with snakes for hair who turned men who saw her into stone until Perseus killed her.

ANSWER: **Medusa**

5. This composer's Hammerklavier is known for its difficulty, while his piano sonatas include the Appassionata and Pathétique. His sixth symphony is known as the “Pastoral,” while his third is the “Eroica.” For ten points, name this German composer of the Moonlight Sonata, whose ninth symphony contains lyrics from the Ode to Joy.

ANSWER: Ludwig van **Beethoven**

6. Raymond Davis won a Nobel prize for detecting neutrinos in this celestial body, one region of which is the chromosphere. The frequency of patches found on this body tends to follow an eleven-year cycle; these are its namesake spots. Proxima Centauri is the closest other star to this one. For 10 points, name this star located about 93 million miles from the Earth.

ANSWER: the **Sun**

7. Ceva's Theorem provides a test for whether cevians in this shape are concurrent. An Euler line is formed by the centroid, orthocenter, and circumcenter of this shape. The law of sines equates the ratios of this shape's side lengths to the sines of the opposite angles. Its area can be calculated using Heron's formula and its solid of revolution is a cone. For ten points, name this three sided polygon.

ANSWER: **triangle**

8. Structures in this organ include the glomerulus, Bowman's capsule, and the Loop of Henle. Calcium oxalate crystals can form objects in this organ made up of nephrons; those objects are this organ's painful namesake stones. For ten points, name this organ which filters wastes from blood to create urine.

ANSWER: **kidney**

9. This state is home to Lake Mono and Lake Tahoe. The tallest mountain in the lower 48 states appears in this state home to Yosemite Valley and Sequoia National Park, while the San Andreas fault runs under this state. For ten points, name this US state home to both the Mojave Desert and Death Valley with capital at Sacramento.

ANSWER: **California**

10. This author invented the detective story in his work *The Murders in the Rue Morgue*, while another of his stories deals with the murder of an old man with a "vulture eye." This author wrote a poem about how the title creature "came a tapping, As of someone gently rapping, rapping at my chamber door." For ten points, name this Baltimore author of "The Telltale Heart" "The Raven"

ANSWER: Edgar Allan **Poe**

11. This leader began the swadeshi program of protesting foreign goods, which included an emphasis on homespun cloth. This leader who was succeeded by Nehru led the salt march against a tax on that substance, and was assassinated because he insisted on paying 550 million rupees to Pakistan. For ten points, name this supporter of satyagraha, or nonviolent resistance, who led the liberation of India.

ANSWER: Mohandas Ketchurian **Gandhi** [or Mahatma **Gandhi** or **Bapu**]

12. One author from this country wrote about Julian Sorel in *The Red and The Black*. In addition to Stendhal, another author from this country wrote about the title lover of Leon Dupuis and wife of Charles in *Madame Bovary*. In a novel set in this country, Javert does not turn in Jean Valjean. For ten points, name this country where *Les Miserables* is set, the home of Gustave Flaubert and Victor Hugo, who lived in its capital Paris.

ANSWER: **France**

13. This man's presidency saw Brigade 2056 disastrously storm a beach, as well as Sargeant Shriver's creation of a civilian foreign service program. In addition to the Bay of Pigs and the creation of the Peace Corps, this man laid the seeds for the Vietnam War by sending US advisors there. For ten points, name this president who was succeeded by Lyndon Johnson after being assassinated in 1963.

ANSWER: John F. **Kennedy**

14. This man wrote "so long live this and it gives life to thee" in his sonnet 18, while Ariel is freed by Prospero in his *The Tempest*. This man also described Gloucester's blinding in a play about the father of Cordelia and another work in which a sword-thrust through a curtain kills Polonius. For ten points, name this author of *King Lear* and a work in which the title Dane says "To be or not to be," *Hamlet*.

ANSWER: William **Shakespeare**

15. This man's troops defeated Russia at the battles of Friedland and Borodino. After returning from Elba, this Corsica-born military leader was exiled to St. Helena after losing to the combined forces of Blucher and the Duke of Wellington at Waterloo. For 10 points, name this early 19th century French military leader who actually wasn't particularly short for his time.

ANSWER: **Napoleon Bonaparte** [accept either; or either of **Napoleone Buonaparte**; also accept **Napoleon I**; do not accept "Napoleon II" or "Napoleon III"]

Bonuses

1. Name some instruments for ten points each:

[10] This instrument has a keyboard with white and black keys, which, when pressed, cause a hammer to strike strings. Frederic Chopin's Minute Waltz was written for one of these.

ANSWER: **piano**

[10] This half-sized flute takes its name from the Italian word for "small." It features prominently in John Philip Sousa's "Stars and Stripes Forever."

ANSWER: **piccolo**

2. The protagonist of this book goes crazy after reading medieval fantasy novels like *Amadis of Gaul*. For ten points each:

[10] Name this novel about a man who believes himself to be a knight and attacks windmills, as well as his squire Sancho Panza.

ANSWER: *The Ingenious Hidalgo **Don Quixote** De La Mancha* [or *El Hidalgo Ingenioso **Don Quixote** De La Mancha*]

[10] This autor of *La Galatea* also wrote *Don Quixote*.

ANSWER: Miguel De **Cervantes** Saavedra

3. It was preceded by a customs union called the Zollverein. For 10 points each:

[10] Name this nation unified in 1871 from territories such as Bavaria and Saxony. It was again divided following World War II, but reunited in 1990.

ANSWER: **Germany**

[10] This man was the first chancellor of a unified Germany. During his term, he instituted the Kulturkampf campaign against the Roman Catholic Church.

ANSWER: Otto von **Bismarck**

4. This artist's *Last Judgment* was defaced by the orders of the Council of Trent. For ten points each:

[10] Name this painter of the Sistine Chapel's ceiling and sculptor of *David*

ANSWER: **Michelangelo** di Lodovico Buonarrotri Simoni

[10] Michelangelo was a contemporary of this artist, who painted the School of Athens.

ANSWER: **Raphael** [or **Raffaello** Sanzio]

5. Name these molecules important to human health, for ten points each:

[10] This class of molecules is made up of carbon as well as hydrogen and oxygen in a two-to-one ratio. Examples include glucose, sucrose, and other sugars and starches.

ANSWER: **carbohydrates**

[10] Proteins are made up of these building blocks that have an amine group and a carboxyl group. Examples of the twenty different types are glycine, tryptophan, and cysteine.

ANSWER: **amino acids**

6. One scene in this novel sees Jem and Scout saved by Boo Radley from an attack by Bob Ewell as they return from a Halloween pageant. For ten points each:

[10] Name this novel set in the fictional town of Maycomb, Alabama which describes the trial of Tom Robinson, who was wrongly accused of raping Mayella Ewell.

ANSWER: **To Kill a Mockingbird**

[10] *To Kill a Mockingbird* was the only novel written by this author awarded the Presidential Medal of Freedom in 2007.

ANSWER: Harper **Lee**

7. Name some layers of the Earth, for ten points each:

[10] This is the outermost layer of the Earth. The oceanic and continental varieties have different compositions, especially with regards to incompatible elements.

ANSWER: **crust**

[10] Convection currents cause circulation in this region below the crust. It is predominantly solid and accounts for most of the Earth's volume.

ANSWER: **mantle**

8. Name some Jewish holidays, for ten points each:

[10] This holiday commemorates the rededication of the temple. It is most famous for involving menorahs and dreidels, not to mention latkes.

ANSWER: **Hanukah** [or **Chanukah**; accept reasonable equivalents]

[10] This day of repentance begins with the Kol Nidre prayer. It is the most famous fast in the Jewish calendar.

ANSWER: **Yom Kippur**

9. They battled the Voortrekkers at Blood River. For 10 points each:

[10] Name this southern African tribe which was led by Shaka.

ANSWER: **Zulu**

[10] One innovation introduced by Shaka to the Zulu was the introduction of a short stabbing version of this weapon also used by Greek hoplites. Pikes are a longer version of this weapon.

ANSWER: **Spear**

10. Gneiss, slate, and schist are all examples of this type of rock. For ten points each:

[10] Name this rock type that results from the transformation of other rocks, generally due to extreme temperatures or pressures.

ANSWER: **metamorphic**

[10] This white, metamorphic rock derived from calcite was commonly used for buildings or sculptures.

ANSWER: **marble**

11. Pencil and paper ready. Josh's first four math test scores are 65, 55, 70, and 42. For 10 points each:

[10] What must he make on his fifth test in order to pass his class with a score of exactly 60%?

ANSWER: **68**

[10] Assume that Josh made a 68 on his fifth test. Find his median test score.

ANSWER: **65**

12. Its protagonist rejects the clergyman Mr. Collins. For ten points each:

[10] Name this English novel about the love affair between Elizabeth Bennet and Fitzwilliam Darcy.

ANSWER: **Pride and Prejudice**

[10] This author who told the story of the Dashwood sisters in *Sense and Sensibility* wrote *Pride and Prejudice*.

ANSWER: Jane **Austen**

13. The fact that the president is the commander-in-chief of the armed forces, but only Congress can declare war is an example of this system. For 10 points each:

[10] Name this system wherein power is separated between the three branches of government, and each branch can limit the power of the other branches through a system of the two title objects.

ANSWER: **checks** and **balances**

[10] This check on the power of the executive and judicial branches is the process whereby a government official is accused of misconduct in office or breaking the law. It has only happened to two U.S. presidents, Andrew Johnson and Bill Clinton.

ANSWER: **impeachment** [accept word forms]

14. Name some things about fluids and the principles that govern them for ten points each:

[10] This principle states that a floating object displaces its own weight of fluid. It was discovered by a Greek scientist who ran around yelling "eureka."

ANSWER: **Archimedes'** Principle

[10] This is the measure of a fluid's resistance to change and can be thought of as its thickness. Hence, water has a relatively low value for this while corn syrup has a much higher value.

ANSWER: **viscosity**

15. Its first day was Black Tuesday. For ten points each:

[10] Name this economic downturn which began with the stock market crash of 1929 which some say was worsened by the actions of President Herbert Hoover.

ANSWER: **Great Depression**

[10] Hoover was succeeded by Franklin Roosevelt, who enacted this plan to try to stop the Depression, which included the creation of the Tennessee Valley Authority.

ANSWER: **New Deal**