

Academic Bee – Final Round (K-5)

Regulation Tossups

(1) One of this company's vehicles became the first production car to be launched into space aboard a Falcon Heavy Rocket. That car made by this company, the Roadster, was also among the first production cars to be powered exclusively by (+) lithium-ion battery cells, and this company is known for its Autopilot and Full Self-Driving (*) technology. For the points, name this company that produces electric cars and is led by Elon Musk.

ANSWER: Tesla, Inc. (accept Tesla Motors; accept Tesla Roadster)

(2) This composer wrote *Don Giovanni*, which used popular music from its era, including from this composer's own work *The Marriage of Figaro*. This composer of a namesake (+) Requiem also wrote the *Jupiter Symphony* and *Eine Kleine Nachtmusik*. (*) For the points, name this Austrian composer and child prodigy who wrote *The Magic Flute*.

ANSWER: Wolfgang Amadeus Mozart

(3) The Great Molasses Flood occurred during this year in Boston. This year saw the Palmer raids, a part of the First Red Scare. (+) The Volstead Act, which enacted Prohibition, was passed during this year, at the end of which Edith Wilson began unofficially overseeing the office of the presidency following her husband Woodrow's stroke. (*) For the points, name this year during which the Treaty of Versailles was signed.

ANSWER: 1919

(4) *Barbadensis Miller* is the species of this plant most commonly used for its primary commercial purpose. When growing in a potted environment, this plant might be crowded by "pups," and it is native to the Hajar Mountains of the Arabian Peninsula. (+) This plant's leaves contain acemannan, and it also produces a toxic compound called aloin. (*) For the points, name this succulent species which can be used to create gels and lotions to treat burns.

ANSWER: aloe vera

(5) In *The Little White Bird*, this character is described as a "betwixt-and-between" because he flew away from his mother. This character was based on the real-life Llewelyn Davies boys after they met its author at Kensington Gardens. At (+) Marooner's Rock, this character rescues the princess of an American Indian tribe, Tiger Lily, by imitating the voice of (*) Captain Hook. For the points, name this literary character known as the boy who wouldn't grow up.

ANSWER: Peter Pan

(6) **The Polish mathematician Marian Rejewski used "Zygalski sheets" to exploit a weakness in this device's reflector. This device, originally patented by Arthur Scherbius for commercial use, utilized a series of three or four rotors to scramble electrical signals. (+) The "Bombe," which was developed at Bletchley Park, was designed specifically to deduce the daily settings of this device. (*)** For the points, name this cipher machine used by the Nazi military during World War Two.

ANSWER: **Enigma**

(7) **Karl von Terzaghi studied a process of consolidation in this material, and that process can be measured with the oedometer test. The fall cone factor can be used to estimate the liquid limit of this material, which is one of the Atterberg limits. (+) "A," "B," and "C" are names for horizons of this material, which is formed by pedogenesis, including by wind blowing silt. (*)** For the points, name this material which provides nutrients for plants.

ANSWER: **soil** (or **earth**; accept **soil** formation; accept **soil** horizon; accept **soil** consolidation)

(8) **Idealist theories in this country were spread by Samuel Johnson, a philosopher who was influenced by Englishman George Berkeley. Pragmatism is one of the few schools of philosophy which originated from this country, and one founder of a colony within this country. (+) John Winthrop, used the phrase "City upon a Hill." The Objectivist movement and transcendentalism emerged from, (*)** for the point, what country, the home of Thomas Jefferson?

ANSWER: **United States** of America (or **USA**; or **America**; accept **American** colonies and similar answers)

(9) **The mud version of these landforms are located at fault boundaries where breaks in the crust allow liquid and gas to reach the surface. The ice version of these landforms reduce coastal erosion and are most common along the southern coast of (+) Lake Erie and Lake Ontario. These landforms sometimes form away from plate boundaries at hot spots, including the Ring of Fire in the Pacific Ocean. (*)** For the points, identify these landforms that come in composite, shield, cinder cone, and lava dome types.

ANSWER: **volcanoes**

(10) **During World War Two, this country allied itself with Nazi Germany against the Soviets during the Continuation War. (+) and its military during that conflict was led by Carl Gustaf Emil Mannerheim. (*)** Simo Hayha gained prominence as a sniper for, for the points, what country that fought the Soviets in the Winter War?

ANSWER: Republic of **Finland** (or **Suomen** Tasavalta; or Republiken **Finland**)

(11) **Whether these features will transport, erode, or deposit are shown on different portions of a graph called the Hjulstrom curve. Abandonment of old examples of these features occurs as part of avulsion, which can be exemplified as (+) delta switching, and one side of these features suffers from higher erosion and is the cut bank. (*)** Dams can be built across, for ten points, what bodies of water that carry water to the ocean?

ANSWER: **rivers** (or **stream**lets; accept **brooks**; accept **creeks**; accept **river**bed)

(12) **One of the few female rulers in Islamic history was this empire's Razia Sultana. Reaching its prominence under Muhammad bin Tughluq, this empire's eponymous capital was sacked by Tamerlane in 1398, (+) leading to the rise of the Vijayanagara Empire. Conquered by the Mughals after the First Battle of Panipat, (*)** For the points, what is this empire governed from a namesake city near the modern capital of India?

ANSWER: **Delhi** Sultanate (or Sultanate of **Delhi**)

(13) **This structure is made up of several cartilages, and its arytenoid cartilages articulate with the cricoid cartilage on its posterior aspect. The glottis, the opening between the distinctive tissues found within this organ, (+) is covered by the epiglottis during swallowing. The thyroid cartilage of this organ forms a protrusion in the neck known as the "Adam's apple." (*)** For the points, name this sound-producing organ located beneath the pharynx and containing the vocal cords.

ANSWER: **larynx** (or **voice box**; prompt on "Adam's apple")

(14) **This poet described "ships that pass in the night" in *Tales of a Wayside Inn*, a collection that also includes a poem about a patriot's midnight ride. (+) This author adapted a Native American setting and characters like Minnehaha in his work *The Song of Hiawatha*. (*)** For the points, name this American poet of "Evangeline" who wrote the lines "Listen, my children, and you shall hear" in his poem "Paul Revere's Ride".

ANSWER: Henry Wadsworth **Longfellow**

(15) **One politician in this country lost the support of Komeito party leader Tetsuo Saito, resulting in that party leaving its government coalition. This country has been in a diplomatic crisis with China since 2025 after its prime minister made comments about Chinese attacks on Taiwan. Now led by its first female prime minister, (*) Sanae Takaichi, for the points, name this country governed from Tokyo.**

ANSWER: **Japan** (or **Nihon**; or **Nippon**)

(16) **An enlarged tongue is part of this disorder and increases the risks of sleep apnea. This disorder causes Brushfield spots, which manifest as discoloration in the iris. (+) The likelihood of this disorder occurring in children rises to three percent in mothers over the age of 35, and physical characteristics of this disorder include a (*) flattened nose and face. For the points, identify this genetic disorder that is caused by trisomy of chromosome 21.**

ANSWER: **Down** Syndrome (or **Down's** Syndrome; or **trisomy-21** before "trisomy" is said)

(17) **A young boy in this painting who brandishes two pistols inspired Victor Hugo's Gavroche in *Les Misérables*. Housed in the Louvre, this painting depicts figures climbing over a (+) barricade strewn with the bodies of revolutionaries, while the central figure is depicted with a tattered dress, wearing a Phrygian cap while holding the French tricolor. (*)** For the point, name this Eugène Delacroix [[yoo-ZHEN deh-lah-KWAH]] painting commemorating the July Revolution of 1830.

ANSWER: **Liberty Leading the People**

(18) **An item lost in this vessel was a jewel-encrusted copy of a book of poetry called *The Rubaiyat of Omar Khayyam*. A specific wireless call sign used by the vessel's (+) Marconi operators was "MGY."** Charles Lightoller, the highest-ranking officer to survive on this vessel, enforced a strict "women and (*) children only" policy on this vessel's port side. For the points, name this British luxury passenger liner that sank on April 15, 1912.

ANSWER: RMS **Titanic**

(19) **The largest ever occurrence of these natural disasters was in 1960 in Valdivia Chile, with a 9.5 rating on one scale. (+) These natural disasters are particularly common in cities like Santiago and San Francisco. Measured by the Richter Scale, (*)** for the points, name these events in which the earth shakes violently.

ANSWER: earth**quakes** (accept **tremors**; accept **temblor**)

(20) **One character in this series shares his name with the world's largest lake, while another character is commonly considered a symbolic stand-in for Jesus Christ. (+) This book series was written by the author of *The Screwtape Letters*, and its first book features the Pevensie kids and the White Witch. First debuting with (*) *The Lion, the Witch, and the Wardrobe*, for the points, what is this fantasy children's book series by C.S. Lewis?**

ANSWER: *Chronicles of* **Narnia**

(21) **Following this rebellion, College of William and Mary president Thomas Roderick Dew published a defense of slavery, and many slave states further restricted laws against literacy for African-Americans. Preparations for this rebellion began after its leader saw a solar (+) eclipse, and this rebellion was suppressed in Virginia's Southampton County. The deadliest revolt by enslaved people (*) prior to the Civil War, for the points, what is this rebellion?**

ANSWER: Nat **Turner**'s Rebellion (accept **Southampton** Rebellion before "Southampton" is mentioned; accept "insurrection" in place of "rebellion")

(22) **Steel is a type of this mixture and is composed of iron and carbon, often with other elements such as manganese, chromium, nickel, or tungsten. (+) The properties of this material can be significantly different from those of its constituent metals, often exhibiting improved strength, hardness, or corrosion resistance. (*)** For the points, name these materials composed of two or more metals combined in a homogeneous mixture.

ANSWER: **alloys**

(23) **This artist's only sculpture was titled *Little Dancer of Fourteen Years*. This artist was a leading member of a circle that included Édouard Manet and Camille Pissaro, and during the Reconstruction era, this man depicted his uncle Michel Musson's cotton (+) firm in *A Cotton Office in New Orleans*. Frequently depicting horses in paintings like *Before the Race* and known for his images of (*) dancers, for the points, who was this Impressionist painter?**

ANSWER: Edgar **Degas** [[deh-GAH]] (or Hilaire-Germain-Edgar **De Gas**; accept phonetic pronunciations)

(24) **Albert Kitson advocated for development of the basin of this lake for resource extraction. Created by the Akosombo Dam, this lake is the largest situated on the prime meridian and is formed from "Black" (+) and "White" rivers that share its name. Supplying a large portion of Togo's energy and the largest reservoir (*) in the world by surface area, for the points, what is this lake in Ghana?**

ANSWER: Lake **Volta** (accept Black or White **Volta**)

(25) **One monarch with this name ascended the throne after the abdication crisis of 1936 and remained monarch during the Second World War, becoming a symbol of (+) British perseverance despite a stammer dramatized in a later film. Another ruler of this name was the target of the Declaration of Independence. (*)** For the points, give this regnal name shared by six kings of the United Kingdom, including the king who ruled during the American Revolution.

ANSWER: **George** (accept any specific monarch with that name)

(26) **This scientist's *annus mirabilis* in 1905 saw his publishing of four groundbreaking papers, including his explanations on Brownian motion and photoelectric effect. (+) Alongside Leo Szilard, this scientist penned a letter to Franklin D. Roosevelt warning him about his native Germany's nuclear weapons program under the Nazis during World War Two. (*)** For ten points, name this German physicist famous for his theory of relativity.

ANSWER: Albert **Einstein**

(27) **This ruler issues the *Res Gestae*, or *The Deeds*, as a royal autobiography. With Marcus Agrippa, this ruler won the Battle of Actium (+) against an alliance of Marc Antony and Cleopatra. This ruler was the adopted heir of (*) Julius Caesar. For the points, name this first emperor of Rome.**

ANSWER: **Augustus** (or **Octavian**; or Gaius **Octavius**)

(28) **This element is too reactive to occur in pure elemental form but appears in numerous minerals including zeolite and halite. (+) At about 2.6 percent of the Earth's crust, this element is the most abundant alkali metal. (*)** For ten points, name this element, which is exchanged with potassium in a biological pump, perhaps best known for its presence in table salt.

ANSWER: **sodium** (or **Na**; accept **sodium**-potassium pump; accept **sodium** chloride or **NaCl**; prompt on "salt" at any point)

(29) **According to the *Gylfaginning*, this deity married Nanna, with whom he is said to have a son, Forseti. That work also states that nothing is more beautiful than this deity's hall, Breidablik, and that no ship is larger than his *Hringhorni*. Váli. (+) a brother of this deity, was born at the end of his life to avenge his murder. Killed by a mistletoe (*) arrow in a scheme by Loki, who tricked Hodr, for the points, who is this Norse deity?**

ANSWER: **Baldr**

(30) **This city gives its name to a regional style of modern architecture mastered by Morris Lapidus. Participants in the Mariel boatlift were largely processed at decommissioned missile defense sites (+) in the metro area of this city, which is surrounded by the Atlantic Ocean and Biscayne Bay. The second most populous city in Florida is, (*)** for ten points, what majority-minority urban area on the state's Southern tip?

ANSWER: **Miami** (accept **Miami** Modern)

Extra Questions

(1) **A man-made landform in this city called the Leslie Street Spit is a top site for observing birds, and the "Tree City" plan is located in this city's Downsview Park. This city's ravine system is crossed by the (+) Don Valley Parkway, and the financial district of this city is located at Bay Street, where Scotiabank has its headquarters within the Golden Horseshoe. (*)** For ten points, identify this Canadian city, which has suburbs such as Scarborough, Mississauga, and Brampton.

ANSWER: **Toronto**

(2) **During construction of this building, Walter Hall added additional steel reinforcement in the main floor beams, beyond the orders of the architect. (+) Commissioned by the owner of a Pittsburgh department store in Stewart Township, Pennsylvania, (*)** for the points, what is this cantilevered Frank Lloyd Wright-designed residence?

ANSWER: **Fallingwater** (prompt on answers such as "Edgar J. Kaufmann Residence")

(3) **During this conflict, American marines gained the nickname "Devil Dogs" while fighting during the Battle of Belleau Wood. That battle was fought during a Spring Offensive, and following that offensive, American soldiers took part in the (+) Hundred Days Offensive, including the Battle of St. Quentin Canal and the Meuse-Argonne Offensive. (*)** For the points, name this conflict the U.S. joined after the British intercepted the Zimmermann Telegram.

ANSWER: **World War One** (or **First World War**; or **Great War**; prompt on "World War")