

# National Academic Bee – Finals (ES)

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## Regulation Tossups

(1) **Clay examples of these animals that come to life are the subject of a Chris d’Lacey series, whose title *Last* example is named Gawain. Thorn and Glaedr are examples of these creatures from Christopher Paolini’s *The Inheritance Cycle*.** (+) One of these creatures from a J.R.R. Tolkien children’s book may have been inspired by one that kills Beowulf in an epic poem, or Fafnir from Norse mythology. (\*) For the points, name these mythical creatures that include *The Hobbit’s* Smaug.

ANSWER: **dragons**

(2) **In this author’s book *Seventh Grade*, a boy wants to look nice so he can impress a girl at school, but he finds out that being kind is more important. In another book by this author, a boy feels guilty after stealing a pie.** (+) Many of this author’s stories, such as *Buried Onions*, depict the everyday lives of Mexican-American children. (\*) For the points, name this children’s author of *Baseball in April* and *A Fire in My Hands*.

ANSWER: Gary **Soto** (or Gary Anthony **Soto**)

(3) **In his childhood, this monarch was confronted an anti-tax rebellion called the Fronde, leading him to centralize authority to the point of claiming** (+) “I am the state.” This issuer of the Edict of Fontainebleau ended an era of tolerance of Huguenots, and one of his early advisors was Cardinal Mazarin. (\*) For the points, name this long-reigning French king who was called “the Sun King.”

ANSWER: **Louis the Fourteenth** (or **Louis the Great**; or **Louis Le Roi Soleil**; or **Louis the Sun King**)

(4) **This country’s center is occupied by the Bié Plateau, which is the source of the Cuanza River, as well as the homeland of its Ovimbundu people. This country displays a cogwheel and machete on its red and black flag.** (+) Behind Brazil, this country is the largest Portuguese-speaking country, and it administers the Cabinda exclave between the Democratic Republic of Congo and the Republic of Congo. (\*) For the points, name this oil-rich African country, governed from Luanda.

ANSWER: Republic of **Angola** (or República de **Angola**)

(5) **I.J. Thomson explored the composition of canal rays by channeling streams of this element’s ions through a magnetic and an electric field.** (+) In 2014, the price of this element jumped by 600 percent after the Russian annexation of Crimea, and the red version of this element is the only type that is actually contained in its namesake lighting. (\*) For the points, identify this second-lightest noble gas, which is located just beneath helium on the periodic table, and used in signs commonly seen in Las Vegas.

ANSWER: **neon** (or **Ne**)

(6) **This layer of the atmosphere is where equatorial zonal wind undergoes oscillations in quasi-biennial oscillations. Westerly winds slow in the polar vortex, which is then followed by sudden warming of this layer. (+)** Ultraviolet radiation from the Sun is captured by this region's ozone layer. Most commercial planes avoid turbulence by flying within this layer of the atmosphere. (\*) For the points, what layer of the Earth's atmosphere is located between the mesosphere and the troposphere?

ANSWER: **stratosphere** (accept sudden **stratospheric** warming)

(7) **This man was executed after a trial in which he was found guilty of murder during the War of the Two Brothers. This man committed that murder to succeed his father, Huayna Capac. (+)** This man was captured in the Battle of Cajamarca, after which he filled a room full of gold in response to a ransom request. Charged with various crimes by (\*) Francisco Pizarro was, for the points, what last independent emperor of the Inca?

ANSWER: **Atahualpa**

(8) **The final movement of a symphony with this nickname includes the theme "C, D, F, E" and ends with a five-voice fugato. A movement with this name, adapted into the tune for "Thaxted," was later made into the melody for "I Vow to Thee, My Country." (+)** A symphony with this celestial nickname was preceded by the Great G Minor Symphony and is the final one by Mozart. (\*) For the points, name this planet that is called the "Bringer of Jollity" in a suite by Gustav Holst.

ANSWER: **Jupiter**

(9) **This artist's painting *Mural* is owned by the University of Iowa Museum of Art and was commissioned by Peggy Guggenheim. Australian Prime Minister Gough Whitlam approved the purchase of one of this artist's works, which was *Blue Poles*. (+)** Alfonso Ossorio purchased a work of art created by this man, which used liquid paints, and was called *Number Five, 1948*. The husband of Lee Krasner, (\*) for the points, name this abstract expressionist who used drip painting to create his art.

ANSWER: Jackson **Pollock** (or Paul Jackson **Pollock**)

(10) **This river's estuary contains an island, Ladrões, which is part of the Wanshan archipelago. This river forms from three rivers known as Xi [[she]], Bei [[bay]], and Dong. (+)** This river's delta contains the largest and most populous contiguous urban area in the world and is anchored by cities like Shenzhen [[shen-jen]] and Guangzhou [[guang-joe]]. (\*) For the points, name this river in southern China that flows through Macau and Hong Kong.

ANSWER: **Pearl** River (or **Zhuijiang** or **Canton** River)

(11) **Calvin and Benson elucidated this process's dark reactions using radioactive carbon-14. RuBisCO catalyzes the first major step of this process's carbon fixation cycle, which occurs in the stroma. (+)** The light-dependent portion of this process splits water molecules and produces ATP and NADPH in thylakoids. (\*) For the points, name this process in which plants convert light energy into chemical energy, producing glucose and oxygen.

ANSWER: **photosynthesis**

(12) **This co-founder of the Niagara Movement wrote *Black Reconstruction in America*. This thinker popularized a phrase called the "color line" and described "double consciousness."** (+) This author of an essay called "The Talented Tenth" opposed the Atlanta Compromise of Booker T. Washington. (\*) For the points, name this African-American civil rights activist, who authored *The Souls of Black Folk*.

ANSWER: W. E. B. **Du Bois** [[doo BOYSS]] (or William Edward Burghardt **Du Bois**)

(13) **The Republic of Ezo followed this regime and restricted voting to a warrior caste. Feudal lords were forced by this regime to move residence between their own domains and the national capital each year in a policy called "alternate attendance."** (+) This anti-Christian regime used an isolationist policy known as *Sakoku* prior to the arrival of Matthew Perry's fleet. (\*) For the points, name this Japanese regime founded by Ieyasu.

ANSWER: **Tokugawa** Shogunate

(14) **This place was completely destroyed by the traitorous King Mark of Cornwall following the Battle of Camlann. This place was home to a vacant chair called the Siege Perilous, which killed anyone unworthy who sat in it.** (+) A knight sent by Morgan la Fey arrives at this place on Christmas Day and challenges its owner to a beheading game in the poem *Sir Gawain and the Green Knight*. (\*) The Knights of the Round Table met in, for the points, what castle home to King Arthur?

ANSWER: **Camelot**

(15) **This puzzle can be solved using Gray codes, and a generalization of this puzzle can be solved by the Frame-Stewart algorithm.** (+) The solution to this puzzle, which can be solved using a recursive procedure, requires a minimum of "two to the n minus one" moves when there are n disks. (\*) For the points, name this puzzle in which disks are moved from one rod to another, but must remain stacked in order of size.

ANSWER: **Tower of Hanoi** (accept the **Problem of Benares Temple**, **Tower of Brahma**, **Lucas' Tower**, or **Pyramid** Puzzle)

(16) **This country's petroleum production recently skyrocketed with the discovery of the Stabroek block. This country's green flag displays a red triangle superimposed on a larger yellow triangle.** (+) This country disputes its western half, the Esequibo region, with a neighboring country, and it is the only Anglophone country in South America. (\*) For the points, name this country sandwiched between Brazil, Venezuela, and Suriname, with capital at Georgetown.

ANSWER: Cooperative Republic of **Guyana** (accept British **Guiana**)

(17) **One character written by this author defends his sister Kate from Mulberry Hawk, a friend of their wealthy but cruel uncle, Ralph. This author created (+) Nicholas Nickleby, as well as an iconic miser who is visited by the ghosts of Christmas** (\*) past, present, and future. For the points, name this nineteenth century British author of *A Christmas Carol*.

ANSWER: Charles **Dickens**

(18) **This person's *Commentariolus* briefly outlined theories including that equal motion should be measured not by the equinoxes, but by the fixed stars. (+)** This person triggered a namesake revolution when his *On the Revolutions of the Heavenly Spheres* was published in 1543, and his theories were supported by Johannes Kepler. (\*) For the points, name this Polish astronomer who was the first modern scientist to formulate the heliocentric model.

ANSWER: Nicolaus **Copernicus**

(19) **This program was effectively controlled by Harry Hopkins. Massachusetts representative John W. McCormack steered this program through Congress. This program was defended in the "Arsenal (+) of Democracy" installment of the fireside chat. Franklin D. Roosevelt initiated, (+)** for the points, what program that permitted the president to send military armaments to Great Britain and the Allies?

ANSWER: **Lend-Lease** (or **Lend-Lease** Administration; accept **Lend-Lease** Act)

(20) **Thalia's fear of heights causes her to accidentally scorch large parts of New England when this individual let her drive his chariot. Although he was listening to his iPod at the time. (+)** this deity gave Percy Jackson a thumbs up and voted against executing him. (\*) Lester Papadopoulos is, for the points, what deity with a series of trials in a Rick Riordan novel series?

ANSWER: **Apollo** (accept *The Trials of Apollo*)

(21) **These features produce volcanogenic massive sulfide ore deposits. Some creatures living in these features in American Samoa were said to have colonized an "Eel City." The bathyal (+) zone might include instances of these features called black smokers, which are shaped like chimneys. (+)** Volcanic hotspots and mid-ocean ridges can be the sites of, for the point what fissures, which release hot water?

ANSWER: hydrothermal **vents** (accept deep-sea **vents**)

(22) **This god sent his son Jayanta to retrieve a nectar pot after he failed to stop Garuda from stealing it. This god's bejeweled net lies atop his dwelling on Mount (+) Meru, and he battles a multi-headed serpent with his *vajra*, representing lightning bolts. (+)** For the points, name this Hindu storm god and king of the Devas, the slayer of Vritra.

ANSWER: **Indra**

(23) **This artist's techniques were roundly rejected by painters like William Holman Hunt and John Everett Millais, who were part of a Pre-[this artist] Brotherhood. This painter was commissioned by Pope (+) Julius the Second to create a fresco which depicts scientists like Pythagoras and Archimedes, and the central figures of Aristotle and Plato. (+)** For the points, name this Italian artist of *The School of Athens*, who inspired the name of the Ninja Turtle with the red headband.

ANSWER: **Raphael** (accept Pre-**Raphaelite** Brotherhood)

(24) **A never-completed instance of these machines was supposed to be located in Waxahachie and was canceled after around two billion dollars were spent. (+)** A circular version of these machines discovered the top quark at Fermilab and was called the Tevatron. Often featuring long underground tunnels, (\*) for the points, what type of machine includes examples such as the cyclotron and CERN's Large Hadron Collider?

ANSWER: particle **accelerators** (accept linear **accelerator**; accept linear particle **accelerator**)

(25) **This man led the "Bucktails," a group of New York Democratic-Republicans who opposed DeWitt Clinton, and he gained political prominence by aligning himself against the Calhouns in the Petticoat affair. (+)** The phrase "OK" was popularized from a nickname of this man, Old Kinderhook, and he was the only president to not speak English as a native language, as he spoke Dutch as a child. (\*) Serving as Andrew Jackson's second vice-president was, for the points, what eighth president of the United States?

ANSWER: Martin **Van Buren**

(26) **One character in this work gains a staff that can shrink or grow and is imprisoned under a mountain by the Buddha for 500 years. (+)** only to later escort a monk named Tang Sanzang on a quest to retrieve Buddhist scriptures from India. (\*) For the points, name this classical Chinese novel featuring Sun Wukong, which was also published as *Monkey*.

ANSWER: **Journey to the West** (accept **Xīyóujì**; prompt on "*Monkey*" before mentioned)

(27) **Andreas Sigismund Marggraf oversaw the earliest isolation of this molecule from raisins. A hemoglobin A One C test measures the level of control of this molecule. HFCS is sometimes named the (+) "iso" form of this molecule, which is the most abundant of the monosaccharides. Diabetes is caused by (\*)** an inability to regulate, for the points, what sugar with six carbons?

ANSWER: **glucose** (prompt on "blood sugar")

(28) **Major regions of this highland area include the St. Francois Mountains and the Boston Mountains. This highland area contains an eponymous lake which lies in the Osage (+) River, and it is also home to the Mark Twain National Forest. This highland area home to the resort town of Branson includes the eastern portion of (\*)** Oklahoma. For the points, name this plateau region in southern Missouri and northern Arkansas.

ANSWER: **Ozark** Mountains (or **Ozark** Plateau; or **Ozarks**)

(29) **One character in this musical asks, "Did you hear the news about good old General Mercer?"** That song, "The Room Where It Happens," describes the Compromise of 1790 from Aaron (+) Burr's perspective. This musical features songs like "You'll Be Back" and the hit "My Shot." (\*) For the points, name this Lin-Manuel Miranda musical about the namesake Founding Father.

ANSWER: **Hamilton**

(30) **The U.S. Embassy in this country's capital was bombed in 1983, and its constitution notably provides that its president must be a Maronite Christian, and its prime minister be Sunni Muslim. (+)** This country, whose cedars were once used for ship building and are still depicted on its flag, experienced a massive explosion at its port in 2020, which injured over 7000 people. (\*) For the points, name this predominantly Arab country governed from Beirut.

ANSWER: Republic of **Lebanon** (accept al-Jumhūriyyah al-**Lubnāniyyah**)

### Extra Questions

(1) **This country emerged victorious at the Battle of Breitenfeld, although their king was killed at the Battle of Lützen. (+)** This country entered the 30 Years' War in 1630, and this country lost much of its military prowess after the Great Northern War against Russia. (\*) For the points, name this country led by Gustavus Adolphus.

ANSWER: Kingdom of **Sweden** (accept Konungariket **Sverige**)

(2) **At the beginning of this novel, Pew delivers the "black spot" to a sailor staying at the Admiral Benbow Inn. (+)** A character in this novel overhears a conversation from an apple barrel before warning Captain Smollett and Squire Trelawney about the one-legged (\*) Long John Silver. Captain Flint's former crew leads a mutiny on the *Hispaniola* in, for the points, what novel by Robert Louis Stevenson?

ANSWER: **Treasure Island**

(3) **This politician served as the youngest Democratic majority leader in the history of the Senate. This politician formed a coalition with Adlai Stevenson, (+) Stuart Symington, and Hubert Humphrey to oppose a Massachusetts senator for whom this politician would later serve as running mate. (\*)** For the points, identify this vice president under John F. Kennedy.

ANSWER: Lyndon B(aines) **Johnson** (or **LBJ**)