

National Academic Bee – Finals (MS)

Regulation Tossups

(1) **Following this regime's end, its soldiers created the Republic of Ezo, which restricted voting to its 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," weakening their finances. (+)** This anti-Christian regime used a strict policy of isolationism, 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

(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) **A Nafion membrane is used in the proton-exchange membrane form of these devices, which have lower temperature ranges. (+)** Francis Thomas Bacon created the alkaline variety of these devices, which can be used to create drinking water. These devices differ from batteries in that they need continuous input of resources. (*) For the points, name these chemical devices that can take oxygen and hydrogen and use redox reactions to produce electricity.

ANSWER: **fuel cells** (proton-exchange membrane **fuel cell**, accept alkaline **fuel cel**, **AFC**, or Bacon **fuel cell**; do NOT accept "battery")

(4) **These people, alongside traditional rivals called "Naath," have fought the Shilluk to their north. One leader of this ethnic group was John Garang, who joined the Anyanya rebels and signed a Comprehensive Peace Agreement in 2005 with Omar al-Bashir. (+)** The SPLM has been dominated by these people, leading Nuer leader Riek Machar to rebel against Salva Kiir's government in Juba. (*) For the points, name this Nilotic ethnic group, the largest demographic in South Sudan upon independence.

ANSWER: **Dinka** (accept **lieng**)

(5) **This artist depicted his patron in a dress with a low neckline in a portrait of Isabella Stewart Gardner. A white skirt stands out from a dark, shadowy background filled with musicians to place focus on the central flamenco dancer in this artist's *El Jaleo*. (+)** A highly criticized work by this artist showed Virginie Gautreau with pale skin and two jeweled straps supporting a dress that appears to be falling off. (*) For the points, name this American artist of *Portrait of Madame X*.

ANSWER: John Singer **Sargent**

(6) **One form of this process that involves clay being moved in a suspension is called lessivage. Soluble materials are moved between soil zones via this process, which differs from eluviation. (+)** In agriculture, this process causes loss of nutrients in soil, though it can also be used for salinity control. (*) For the points, name this chemical process in which a solvent causes a solute to be detached from its original carrier.

ANSWER: **leaching**

(7) **The Inkari believe that this man periodically returns to avenge his death. 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 man showed that Riemannian manifolds can be isometrically embedded into Euclidean space in his embedding theorems. (+)** A concept named for this man shows that, in a non-cooperative game, no player can improve their outcome by changing their strategy. (*) For the points, name this mathematician who suffered from schizophrenia and won the Nobel Prize in Economics for his work in game theory.

ANSWER: John **Nash** (or John Forbes **Nash** Jr.; accept **Nash** Imbedding Theorems; accept **Nash** Equilibrium)

(10) **This river's estuary contains an island, Ladrões, which is part of the Wanshan archipelago. This river forms from three rivers whose names mean West, North, and East, 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 **Zhujiang** or **Canton** River)

(11) **This book series begins with gifts from the protagonist's brother, mother, and best friend, Patrick. In this series, Mr. Yapp accuses the protagonist of trying to steal a plastic figurine. (+) Watching television results in Boone getting shot in the chest with an arrow in the first book of this series, which prompts the protagonists to call upon World War One army medic Tommy Atkins. (*) Omri becomes Little Bear's blood brother in, for the points, what Lynne Reid Banks series about bringing toys to life?**

ANSWER: *The Indian in the Cupboard*

(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 (or William Edward Burghardt Du Bois)

(13) **In 1945, this man's government established the Democratic Front after liberation from German rule, but his Party of Labour held real power. Declaring a republic, this man opposed the pro-Axis Balli Kombetar, but, by 1978, even China had dropped its alliance with his isolated regime. (+) This anti-religious dictator drove the Bektashi Order underground and denied Mother Teresa the ability to visit her relatives in his country. (*)** For the points, name this founder of communist Albania.

ANSWER: Enver Hoxha [[HOH-jah]] (or Enver Halil Hoxha)

(14) **This author's first article in the *Atlanta Journal Sunday Magazine* detailed an interview with a socialite who witnessed the Italian Revolution. This author's first novella, *Lost Laysen*, was unpublished until 1996. (+) This author's novelette about a white woman in love with a biracial man, *Ropa Carmagin*, was rejected by the publishing house Macmillan, who accepted a novel by this author about characters such as Ashley Wilkes and Rhett Butler. (*)** For the points, identify this author of *Gone with the Wind*.

ANSWER: Margaret Mitchell (or Margaret Munnerlyn Mitchell)

(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) It's not Thomas Malthus, but political scientist Graham Allison argues that this historian's namesake trap ensures that discombobulation is inevitable when a rising power threatens to displace a ruling power. This historian was excused as a military commander and banished for failing to save Amphipolis. (+) The Melian Dialogue appears in a work by this historian, which also includes a particularly difficult-to-translate Funeral Oration. (*) For the points, identify this Athenian author of the *History of the Peloponnesian War*.

ANSWER: Thucydides (accept Thucydides trap)

(17) Though she is in love with this character, the artist Madeline is courted by Arthur Gride. This character flees with the servant SMIKE after he is given a teaching assignment at Dotheboys Hall under the abusive Wackford Squeers. (+) This character defends his sister Kate from Mulberry Hawk, a friend of their wealthy but cruel uncle, Ralph. (*) For the points, name this alliterative Charles Dickens title character who supports his family after his father's death.

ANSWER: Nicholas Nickleby (accept either)

(18) A protein library is expressed on the M13 type of these pathogens in a namesake "display" technique used to optimize antibodies. Mutation rates were measured before and after the addition of one of these pathogens in the Luria-Delbrück experiment. (+) These pathogens reproduce via the lysogenic, or lytic, cycles and have types such as T Four and lambda that can kill *E. coli* cells by injecting their genomes. (*) For the points, name these viruses that infect bacteria.

ANSWER: bacteriophages (accept phage display; prompt on "virus")

(19) This program drew criticism from isolationists in Congress before being signed as Public Law 77-11, and 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) This individual broke the Ancient Laws by disguising himself as a homeless man named Fred and speaking to a group of questers. 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) Lokiarchaeota [[loh-kee-AR-kay-oh-tah]] are associated with five of these features at a location called Loki's Castle. 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 is humiliated after his attempt to punish a village with a flood is thwarted by Krishna holding up a mountain. 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) One painter linked to this movement was Frederic Leighton, who based his work *Flaming June* on Michelangelo's sculptures. The only female member of this movement to exhibit work was Elizabeth Siddal. (+) This group embraced tempera and Sandro Botticelli in its quest to revive past eras, and practitioners of this movement included William Morris, Edward Burne-Jones, and the Rossettis. (*) For the points, identify this movement that sought to restore art to the time before the *School of Athens*.

ANSWER: Pre-Raphaelite Brotherhood (accept PRB)

(24) Gustav Ising proposed the linear type of these machines, as implemented by Rolf Wideroe. 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) In *The Cultural Front*, historian Michael Denning used this organization to name the left-leaning period of American history from the 1930s to the 1950s. (+) The U.S. Supreme Court ruled that this organization's first amendment rights to free assembly were violated by Jersey City mayor Frank Hague's ban on their public meetings. John L. Lewis was the founding president of, (*) for the points, what conglomerate labor union that merged with the American Federation of Labor in 1955?

ANSWER: CIO (or Congress of Industrial Organizations; do NOT accept "AFL-CIO")

(26) **In this book, a character is born from a stone egg on Flower-Fruit Mountain and later learns magic from the immortal Subhuti. That 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) **This compound can exist in alpha and beta anomers that experience mutarotation. 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 Salem Plateau and the St. Francois Mountains, as well as 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 Springfield and 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 song is asked "You know Claremont street?" after the earlier question "Did you hear the news about good old General Mercer?" (+)** This song claims that "The Virginians emerge with the nation's capital" before claiming that "No one else was in" the title location. (*) For the points, name this song from the musical *Hamilton* about a location where key political decisions are made.

ANSWER: **"The Room Where it Happens"** (prompt on "*Hamilton*" before mentioned)

(30) **This political party was founded by Jewish anti-alcohol activist Lewis Levin. This political party supported Nathaniel Banks, the only third-party speaker of the House. In the Election of 1856, this party's nominee, Millard Fillmore, only won Maryland. (+)** This party, which supported worker's rights but opposed a "Romanist" conspiracy, won 99 percent of the Massachusetts legislature after opposing Irish immigration. (*) For the points, name this nativist party of the 1850s whose best-known name professed ignorance.

ANSWER: **Know-Nothings** (accept Native **American** Party)

Extra Questions

(1) A flagship vessel of this country called the *Vasa* quickly sank after launching in 1628. This country gained territory in Pomerania via the Treaty of Stettin. 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) One group in this novel is spooked by a character that they think is a ghost shouting last words from the forest. 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 leader of the "Little Congress" served as legislative secretary for Richard Kleberg. This politician served as the youngest minority leader, as well 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)