

Academic Bowl – Final Round (ES)

First Quarter

(1) The narrator of a work by this author intersperses the plot with passages from *The Books of Bokanon*. Felix Hoenikker features in that novel by this author of *Breakfast of Champions*, who also wrote a novel about a World War Two soldier named Billy Pilgrim, a survivor of the bombing of Dresden who becomes "unstuck in time." For ten points, name this American author of *Cat's Cradle* and *Slaughterhouse-Five*.

ANSWER: Kurt **Vonnegut**

(2) This man succeeded his father Umar Shaikh Mirza the Second as ruler of Fergana as a child, and he later lost control of Fergana and Samarkand to the Khanate of Bukhara. Utilizing gunpowder technology, this ruler defeated Rana Sanga and the Kingdom of Mewar at the Battle of Khanwa, and later defeated Ibrahim Lodi at the First Battle of Panipat. For ten points, name this Mongolic-Indian ruler who established the Mughal Empire.

ANSWER: **Babur** (or **Zahir ud-Din** Muhammad)

(3) When this organ becomes calcified, it is known as its porcelain type. Blockages in this organ can cause an extremely painful biliary colic, which can then be treated with a cholecystectomy. This organ is linked to the intestines through the sphincter of Oddi, which releases a dark fluid that helps digest fats. For ten points, name this organ that stores bile produced in the liver and releases it to the small intestine.

ANSWER: **gallbladder**

(4) This work was adapted into "Rise, O Voices of Rhodesia" with a melody associated with it, and this work's original form was composed by Friedrich Schiller in 1785. Leonard Bernstein performed this work on Christmas Day after the fall of the Berlin Wall. The official anthem of the European Union is based on, for ten points, what lyric poem, which was set in the fourth movement of Symphony Number Nine by Ludwig van Beethoven.

ANSWER: "**Ode to Joy**" (accept "**An die Freude**")

(5) This conflict included rebellion such as the War of the Camisards and Rákóczi's War of Independence. Allied forces during this conflict won the Battle of Malplaquet, the winning commander of which, the Duke of Marlborough, defended Vienna with a victory at Blenheim. Ended by the Peace of Utrecht, for ten points, what conflict resulted in the Bourbons ascending to an Iberian throne?

ANSWER: War of the **Spanish Succession**

(6) This scientist's first extensive list of elements predicted the existence of silicon. Alongside Pierre-Simon Laplace, this scientist burned jets of hydrogen and oxygen in a bell jar to synthesize water. This scientist disproved the phlogiston theory of combustion. The scientific law of the conservation of mass was confirmed in the *Elementary Treatise on Chemistry* by, for ten points, what scientist, who named hydrogen and oxygen?

ANSWER: Antoine **Lavoisier** [[lah-VWAH-syeh]] (or Antoine-Laurent de **Lavoisier**)

(7) According to this play's author, Caspar David Friedrich's *Two Men Contemplating the Moon* served as its inspiration. According to political analysts, two of this play's characters, Pozzo and Lucky, represent its author's native Ireland's views of mainland Britain. Vladimir and Estragon are the main characters of, for ten points, what surreal Samuel Beckett play considered a prime example of the Theatre of the Absurd?

ANSWER: ***Waiting for Godot*** [[GAH-doh]] (accept phonetic pronunciations)

(8) In 1954, this man was targeted by the Muslim Brotherhood in a failed assassination attempt, leading to the overthrow of President Mohamed Naguib [[NAH-geeb]]. During this man's presidency, he began construction on the Aswan Dam, and his popularity in the Arab world was fueled by his formation of the United Arab Republic and his victory in the Suez Crisis. For ten points, name this former president of Egypt who nationalized the Suez Canal.

ANSWER: Gamal Abdel **Nasser** Hussein

Second Quarter

(1) It's not in Europe, but a writer from this country, Francisco Balagtas, set his work *Florante at Laura* in medieval Albania. While under Spanish colonial rule, writers from this country studying in Europe, such as Marcelo H. Del Pilar, established *La Solidaridad*, and another writer from this country created the character Crisostomo Ibarra in his novel *Noli me Tangere*. For ten points, name this Asian island country whose national hero is author José Rizal.

ANSWER: Republic of the **Philippines** (or Republika ng **Pilipinas**)

BONUS: Lualhati Bautista was the first Filipino writer to infuse activism in her works, such as *Dekada 70*, in response to this former president declaring Martial Law.

ANSWER: Ferdinand **Marcos** (or Ferdinand Emmanuel Edralin **Marcos** Sr.)

(2) These organelles can bind to IRES sequences in a cap-independent manner by recruiting initiation factors such as eIF4. These organelles recognize the Kozak sequence and contain about eighty percent of a cell's RNA. The 40S and 60S subunits of these organelles assemble at a start codon and continue reading along an mRNA during the process of translation. The rough endoplasmic reticulum is studded with, for ten points, what organelles that synthesize proteins?

ANSWER: **ribosomes** (accept **ribosomal** RNA)

BONUS: Ribosomes are produced within this cellular substructure, which is found within a larger, membrane-bound organelle that houses the cell's DNA.

ANSWER: **nucleolus** (prompt on "nucleus")

(3) This organization gained control over Mumbai from Portugal as part of a dowry from the marriage of Catherine of Braganza to Charles the Second. Robert Clive expanded this organization's domain, especially after he gained control of Bengal after winning the Battle of Plassey. Dissolved following the Sepoy Mutiny, for ten points, what was this colonial company that operated in Asia, succeeded by the Raj?

ANSWER: **British East India** Company (prompt on "East India Company" alone)

BONUS: Apart from its ventures in India, the British East India Company was also involved in two wars against this Southeast Asian country, which was ruled by the Konbaung Dynasty and was later annexed into the British Raj.

ANSWER: Union of **Burma** (or Republic of the Union of **Myanmar**; or Pyidaungzu Thammada **Myanma** Naingngandaw; or **Myanma** Naingngandaw)

(4) Following the failure of the Winter War, this composer disowned his work *Suite on Finnish Themes*. This composer completed his *Seventh Symphony* while being evacuated to Kuybyshev in modern-day Samara, and he dedicated his *String Quartet No. 8* to the "victims of fascism and war." For ten points, name this Soviet-Russian composer who wrote the *Leningrad Symphony*.

ANSWER: Dmitri **Shostakovich** (or Dmitri Dmitriyevich **Shostakovich**)

BONUS: In 1934, Shostakovich debuted an opera that was successful but later condemned by the government, titled for this Shakespearean Scottish queen "of Mtensk."

ANSWER: **Lady Macbeth** (accept **Lady Macbeth** of Mtensk; accept **Lady Macbeth** of the Mtensk District; accept **Ledi Makbet** Mtsenskogo uyezda; do NOT accept or prompt on "Macbeth" alone)

(5) When these processes cause an overall negative change in standard enthalpy, they are called exothermic. The rates of these processes are studied in an area of chemistry called chemical kinetics. Equations symbolizing these processes can be balanced via stoichiometry [[STOY-kee-AH-meh-tree]] and may be drawn with a unidirectional arrow, representing the direction of these processes. For ten points, name these chemical processes that transform reactants into products.

ANSWER: chemical **reactions** (accept exothermic **reactions**)

BONUS: These substances are not consumed by chemical reactions but increase the rate of the chemical reaction.

ANSWER: **catalysts**

(6) This city's Cadmea citadel was named after its legendary founder, Cadmus. Another legendary founder of this city is Laius, and an Aeschylus [[ESS-kuh-luss]] play depicts a coalition of seven champions making war against this city to restore Polynices, the son of Oedipus, to its throne. For ten points, name this city-state which achieved hegemony over Greece through an elite military unit, known as its Sacred Band.

ANSWER: **Thebes** (accept Sacred Band of **Thebes**)

BONUS: Theban hegemony over Greece ended following this 338 BCE battle where Thebes was defeated by Philip of Macedon and his teenage son, Alexander.

ANSWER: Battle of **Chaeronea** [[KAY-roh-NEH-uh]]

(7) This woman published a poetry collection titled *Power Politics*, and the On-to-Ottawa Trek served as inspiration for this woman's novel *The Blind Assassin*. In 2019, this author of *Oryx and Crake* released *The Testaments* as a sequel to her best-known novel, which takes place in the fictional theocratic Republic of Gilead. For ten points, name this Canadian novelist, the author of *The Handmaid's Tale*.

ANSWER: Margaret **Atwood** (or Margaret Eleanor **Atwood**)

BONUS: Protestors demonstrating against this Supreme Court justice, who replaced Ruth Bader Ginsburg, donned outfits from *The Handmaid's Tale*.

ANSWER: Amy Coney **Barrett** (or **ACB**)

(8) This scale is often compared to the Rosiwal scale, with the latter measuring corundum at 1,000. The number three on this scale indicates that an item, such as calcite, can be scratched by a penny. In a field kit for this scale, the fingernail of a human is used as the reference for a hardness of 2.0 to 2.5. Topaz is ranked an eight according to, for ten points, what ten-point scale, used to measure the hardness of a mineral?

ANSWER: **Mohs** hardness scale

BONUS: With a ranking of one, this mineral is softest mineral on the Mohs scale. This white mineral is often used in baby powder and cosmetics such as eyeshadow.

ANSWER: **talc** (or **talcum**; accept **talcum** powder)

Third Quarter

The categories are:

1. Jazz instruments
2. Amazon River
3. Computer Science History

Jazz instruments

Concerning instruments used in jazz music, name the...

- (1) Instrument played by Duke Ellington, in which players press black and white keys.

ANSWER: **piano** (or **pianoforte**)

- (2) City whose Cotton Club in Harlem popularized the "wah-wah" trumpet sound of the big band style.

ANSWER: **New York** City (or **NYC**)

- (3) Single reed brass instrument played by Charlie Parker that comes in tenor and alto varieties.

ANSWER: **saxophone**

- (4) Instrument pioneered by Django Reinhardt, the electric variety of which was popularized by Les Paul.

ANSWER: **guitar** (accept electric **guitar**)

- (5) Large instrument played by Charles Mingus, over which Ron Carter played in several 2000 studio sessions.

ANSWER: double **bass** (or upright **bass**;

- (6) Instrument of Béla Fleck, which he used to blend jazz with Appalachian roots music.

ANSWER: **banjo**

Amazon River

Concerning the Amazon River, name the...

- (1) Type of precipitation that names a type of thick-vegetation forest.

ANSWER: **rain** (accept **rainforest**)

- (2) Portuguese-speaking country that contains most of the river, with cities including Sao Paulo and Rio de Janeiro.

ANSWER: Federative Republic of **Brazil** (or Republica Federativa do **Brasil**)

- (3) Omnivorous fish indigenous to the river, which do not actually exhibit feeding frenzies, despite popular legend.

ANSWER: **piranha** (or **piraña**)

- (4) Landlocked country through which it partly flows, governed from La Paz and Sucre.

ANSWER: Plurinational State of **Bolivia** (or Estado Plurinacional de **Bolivia**)

- (5) Colorfully named tributary, flowing from Colombia and providing the largest percentage of the Amazon's water.

ANSWER: Rio **Negro** (or **Guainía**; or **Black** River)

- (6) Country that is home to the Arequipa Region, containing the source of the Amazon near Mismi Peak.

ANSWER: Republic of **Peru** (or Republica del **Peru**)

Computer Science History

Concerning the history of computer science, name the...

- (1) Company once headed by Steve Jobs that developed the Macintosh computer.

ANSWER: **Apple** Computer Inc.

- (2) Co-founder of Microsoft with Paul Allen who was for many years the world's richest man.

ANSWER: Bill **Gates** (or William Henry **Gates** the Third)

- (3) Ancient calculating device that uses a system of beads and rods.

ANSWER: **abacus**

- (4) British mathematician who created a namesake computation machine and helped break the Enigma code.

ANSWER: Alan **Turing** (or Alan Mathison **Turing**)

- (5) British employee of CERN credited with inventing the World Wide Web.

ANSWER: Tim **Berners-Lee** (prompt on partial answer)

- (6) First electronic general purpose computer, completed in 1945.

ANSWER: **ENIAC** (or **Electronic Numerical Integrator and Computer**)

Fourth Quarter

(1) This philosopher was reprimanded by Frederick William the Second for circumventing Prussian censors by using the University of Jena [[YEH-nuh]] to publish *Religion within the Bounds of Bare Reason*. In the essay *Perpetual Peace*, (+) this philosopher argued in favor of an international federation intended to prevent wars, and this man claimed that an act is only moral if it could be willed as a universal law, a rule known as the categorical imperative. (*) For ten points, name this German idealist and author of *Critique of Pure Reason*.

ANSWER: Immanuel Kant

(2) People who carry one copy of the gene for this disease are more resistant to malaria, making this disease especially prevalent in sub-Saharan Africa, India, and the Middle East. This disease is characterized by sudden, painful (+) vaso-occlusive crises that result from the production of an abnormal hemoglobin, which makes this disease's namesake cells more rigid and adhesive. (*) For ten points, identify this disease named for the characteristic crescent shape of its red blood cells.

ANSWER: sickle cell anemia (or sickle cell disease; or SCD)

(3) Art collector Louis Caldor discovered this artist's work displayed alongside homemade preserves in a drugstore window. This artist transitioned to one medium only after severe arthritis made it too painful to continue producing (+) worsted embroidery, and her debut exhibition was titled "What a Farm Wife Painted." Specializing in nostalgic, primitivist depictions of rural (*) New England life, for ten points, who was this renowned American folk artist who gained fame at the age of 78?

ANSWER: Grandma Moses (accept Anna Mary Robertson; accept Anna Mary Robertson Moses)

(4) This political party was established by former members of the Whig Party under Lord John Russell, and it first controlled the premiership under Lord Palmerston. (+) Notable political thinkers active within this political party included John Stuart Mill and John Maynard Keynes, and this party formed four governments under William Gladstone. (*) David Lloyd George once led, for ten points, what now defunct British party, the former rival of the Conservatives?

ANSWER: Liberal Party

(5) Studies have shown that *Pisaster ochraceus* is notably not affected by this phenomenon, unlike related species. This phenomenon occurs because a certain gas dissolves to form carbonic acid, (+) which then dissociates into bicarbonate and hydrogen ions. This phenomenon is particularly harmful to calcifying organisms like (*) corals, pteropods, and shellfish. For ten points, name this ongoing process that causes the lowering of the pH of a large aquatic area.

ANSWER: ocean acidification (accept clear-knowledge equivalents)

(6) **In this novel, a character conducts an invisible orchestra that plays colors at dawn. During a banquet held by a king named Azaz in this work, characters literally eat their words. The main character of this work receives a package containing a map of (+) "the Lands Beyond," and a dog named Tock accompanies the protagonist of this novel on his central journey. (*)** For ten points, Norton Juster wrote what children's novel, named for a magical place that transports Milo to another world?

ANSWER: *The **Phantom Tollbooth***

(7) **According to two of this religion's former leaders, the Tribe of Shabazz was considered the most resilient of Earth's twelve tribes. In another story from this religion, the island of Patmos was the site of "grafting" done by the scientist (+) Yakub. This group was revived in 1981 by Louis Farrakhan, and its theological positions were influenced by the writings of Elijah (*) Muhammad. For ten points, name this black nationalist religion which was once followed by Malcolm X.**

ANSWER: **Nation of Islam** (or **NOI**)

(8) **One star in this constellation, Mizar, forms a double star with Alcor, dubbed the "horse and rider" by Arab astronomers. Galaxies such as Messier 81 and the Pinwheel can be found in this (+) constellation, with the latter located northwest of Alkaid. Merak and Dubhe [[DOO-bee]], two stars in this constellation, are useful in helping to locate Polaris. Also known as the (*) "Great Bear," for ten points, what is this constellation containing the Big Dipper?**

ANSWER: **Ursa Major** (accept **Great Bear** before mentioned; prompt on the "Big Dipper" by asking, "Which is part of what larger constellation?")

Extra Questions

(1) **In this novel, the Patron-Minette are a street gang recruited by the Thénardiens to rob its main character. Nicknames such as "The Lark" and "Mademoiselle Lanoire" are given to (+) Cosette in this novel, and she later falls in love with Marius Pontmercy, a student who partakes in a revolution, which he survives. (*)** For ten points, name this Victor Hugo novel following ex-convict Jean Valjean, also now a famous Broadway musical.

ANSWER: **Les Misérables** (prompt on "Les Mis")

BONUS: This ruler participated in the Azov campaigns against the Ottoman Empire, which led to the founding of the Russian Navy. This ruler led his nation to victory in the Great Northern War.

ANSWER: **Peter the Great** (or **Peter the First**)

(2) **Problems arising from this treaty led to the signing of the Locarno Treaties, and payments as a result of this treaty were reorganized by the Dawes and Young Plans. (+)** As a result of this treaty, one country lost territories such as the Eupen-Malmedy region and Alsace-Lorraine, taken from France from an earlier conflict. (*) For ten points, name this peace treaty which ended World War One between Germany and the Allies.

ANSWER: Treaty of **Versailles**

BONUS: This philosopher championed aristocracy, or rule of the wise, in his *Republic*, and that work also includes his allegory of the cave.

ANSWER: **Plato** (or **Platon**)