

## CEESA Bowl Round 4

### First Half

(Tossup 1) This instrument represents "The Perennial Question of Existence" in the Charles Ives series *The Unanswered Question*. Anton Weidinger developed a keyed one of these instruments, leading to Haydn composing a concerto for this (\*) instrument. The word for "Fanfare" likely comes from the Arabic word for this instrument, and the similar cornet is used exclusively over this instrument in British military bands. For ten points, name this brass instrument played by jazz artist Louis Armstrong.

ANSWER: **Trumpet**

(Bonus 1) Popular late night act and actress Charo studied under a master of this instrument, Andres Segovia. For ten points each:

[10] Segovia was a master at playing the "Spanish" style of what string instrument? "Bob Dylan going Electric" refers to Dylan's abandoning of the acoustic form of this instrument in the mid 1960s.

ANSWER: **Guitar**

[10] An early depiction of this guitar-like string instrument is in John Rose's *The Old Plantation*, seen in a slave's hands while other black people dance.

ANSWER: **Banjo**

[10] This multi-instrumentalist played a hybrid of the Guitar and Banjo as a child. This Guitarist who popularized Romani Jazz wrote *Nuages* and *Minor Swing*.

ANSWER: Django **Reinhardt**

(Tossup 2) This island's northwest formerly was home to the now extinct Dorset Culture. This island's official language is Kalaallisut. This island is separated from (\*) Baffin Island by the Davis Strait. This island, which hosts the U.S.'s Thule Air Base, is locally governed from the city of Nuuk. For ten points, name this largest island on Earth, a glacier covered dependency of Denmark.

ANSWER: **Greenland** (or Kalaallit Nunaat)

(Bonus 2) This mountain names the National Bank of a Latin American nation and canton in the Manabi province. For ten points each:

[10] Name the stratovolcano often known as Wawa, which is Kichwa for "baby." Antonio José de Sucre defeated a Spanish colonial army in a decisive battle on this mountain's slopes.

ANSWER: **Pichincha**

[10] Pichincha is 120 miles north of what other Andean stratovolcano, the farthest point on the Earth's surface to Earth's center.

ANSWER: **Chimborazo**

[10] Both Chimborazo and Pichincha are in this Andean nation, with both mountains appearing in its capital of Quito's skyline.

ANSWER: Republic of **Ecuador**

(Tossup 3) A commission by this man for the Royal Palace depicts a tale from Tacitus where the title one-eyed Germanic chief Claudius Civilus plans the Batavian Uprising. This artist depicts a less duplicitous scene of King (\*) David's encounter with the title beauty in Bathsheba at Her Bath. Captain Frans Banninck Cocq and his namesake company of arquebusiers and pikemen are being deployed in The Night Watch. For ten points, name this Dutch Golden Age painter of The Anatomy Lesson.

ANSWER: **Rembrandt** Harmenszoon van Rijn

(Bonus 3) This painting depicts Peter holding a knife in his right hand, a reference to the story that Peter will go on to cut off the ear of a soldier while trying to stop Jesus's arrest. For ten points each,

[10] Name this painting on a wall of the Santa Maria delle Grazie in Milan.

ANSWER: ***The Last Supper***

[10] This Italian Renaissance artist and student of Andrea del Verrocchio painted The Last Supper in the Santa Maria delle Grazie.

ANSWER: Leonardo **da Vinci**

[10] This other artist's version of The Last Supper is in the San Giorgio Maggiore church in Venice, is considered a Mannerist masterpiece, and unusually places the main table of the meal on a diagonal axis.

ANSWER: Jacopo **Tintoretto**

(Tossup 4 )**This play opens outside of a church in Covent Garden, where Freddy Eynsford-Hill bumps into a girl who is selling flowers and knocks her into the mud. In this play, Colonel Pickering and (\*) Henry Higgins, a phonetics professor, try to teach Eliza Doolittle to speak without her Cockney accent. The musical *My Fair Lady* is based on, ftp, what George Bernard Shaw play titled for a mythical sculptor?**

ANSWER: ***Pygmalion*** (accept ***My Fair Lady*** until mentioned)

(Bonus 4) At the end of this novel, citizens of the title location note that "it was impossible to say which was which" in a room of humans and bipedal pigs. For ten points each,

[10] Name this novel in which the pigs Snowball and Napoleon struggle for power after chasing the humans away from the title location.

ANSWER: ***Animal Farm***

[10] Animal Farm is by this English author, who also wrote 1984.

Answer: **George Orwell** (accept **Eric Arthur Blair**)

[10] In Animal Farm, Napoleon sells this hard-working horse to a glue maker when he gets old, although he claims that this horse instead dies at an animal hospital.

ANSWER: **Boxer**

(Tossup 5) While fleeing his own country, this leader was killed and hanged upside down in the Square of the 15 Martyrs. This man deposed Haile Selassie after ordering the invasion of (\*) Ethiopia despite objections by the League of Nations. This dictator was appointed Prime Minister after leading the Blackshirts during the March on Rome. For ten points, name this Italian dictator during World War II.

ANSWER: Benito **Musolini**

(Bonus 5) The Fosse Way was a road that connected cities in this province. For ten points each,

[10] Name this island province that Rome began to conquer under Claudius. A druid priestess in this province led an uprising that was put down by the governor Gaius Suetonius Paulinus.

ANSWER: **Roman Britain** (or **Britannia**)

[10] During the reign of Hadrian, one of these objects was constructed at Britannia's northern border. Another one of these structures named for Hadrian's successor Antoninus Pius 20 years later.

ANSWER: walls (or Hadrian's Wall or the Antonine Wall)

[10] This man invaded Britain twice during the Gallic Wars. After crossing the Rubicon, this man established a dictatorship in Rome before being assassinated in 44 BC by a group of senators.

ANSWER: **Julius Caesar**

## Sixty-Second Round

The categories are...

1. 1950s USA
2. Charlie and the Chocolate Factory
3. Mass Extinction

## The 1950s USA

Name the...

Part 1: The overseas conflict that included the US in Asia that occurred in the first four years of the decade

Answer: **Korean War**

Part 2: Russian satellite, the first artificial one in space, that flamed American fears in 1957

Answer: **Sputnik 1**

Part 3: Nationality of two Hispanic men who attempted to kill Harry Truman to give their homeland independence

Answer: **Puerto Rican** [Accept **Puerto Rico**]

Part 4: Politician that ran both in 1952 and 1956 Presidential races, losing in landslides to Dwight D. Eisenhower

Answer: **Adlai Stevenson II**

Part 5: Nation, whose elected leader Jacobo Arbenz was overthrown in the US's Operation PBsuccess

Answer: **Guatemala**

Part 6: Computer scientist who helped develop the ENIAC computer successor UNIVAC; she was an early computer scientist

Answer: Grace **Hopper**

## Charlie and the Chocolate Factory

Identify the following people and things from the novel Charlie and the Chocolate Factory.

Part 1: The eccentric candymaker who invites Charlie and four other children to his chocolate factory.

Answer: **Willy Wonka** (accept either bolded name)

Part 2: The family member who takes Charlie to the factory.

Answer: Grandpa **Joe** (prompt on "Grandpa;" do not accept or prompt on "Grandpa George")

Part 3: The kind of treat that turns Violet violet when she fails to listen to the factory-owner's warnings.

Answer: **Chewing gum** (accept descriptions of gum that makes up a full meal)

Part 4: The object that Mike shrinks himself to go inside.

Answer: **TV** (accept television)

Part 5: The gluttonous child who is sucked up a pipe while drinking from a chocolate river.

Answer: **Augustus Gloop** (accept either bolded name)

Part 6: The spoiled child who is pulled down a garbage chute by squirrels while trying to steal one.

Answer: **Veruca Salt** (accept either bolded name)

## Mass extinction

The mass extinction that occurred around 66 million years ago...

Part 1: Wiped out the non-avian type of which large land reptiles?

Answer: **dinosaurs**

Part 2: Paved the way for which class of animals to diversify rapidly into modern horses, whales, and primates?

Answer: **mammals** or **mammalia**

Part 3: Ended which era between the Paleozoic and Cenozoic, which was known as the "Age of Reptiles?"

Answer: **Mesozoic**

Part 4: Occured at the end of which period following the Jurassic?

Answer: **Cretaceous**

Part 5: Left a layer in the geologic record of what element which is common in asteroids?

Answer: **iridium**

Part 6: Is explained by which hypothesis that was supported by the iridium layer and the Chicxulub impact crater?

Answer: **Alvarez hypothesis**

## Second Half

(Tossup 6) The concept of Seigniorage is the difference between the value of this item and the cost it takes to produce it. Ludwig von Mises explores the origin of this concept in the treatise (\*) The Theory of [this concept] And Credit. The fiat form of this system refers to one not backed by a valuable resource like gold but instead backed solely by faith in its value. For ten points, name this item that can be exchanged for goods and service, or to pay back a debt.

ANSWER: **Money** [Accept **Currency**]

(Bonus 6) This war was ended by the Treaty of Utrecht in 1713. For ten points each,

[10] Name this war that was triggered by Charles II's death, leaving the namesake Iberian country's throne to Philip of Anjou.

ANSWER: **War of the Spanish Succession**

[10] This "Sun King" lead France during the War of the Spanish Succession. He is also known for the construction of the palace of Versailles.

ANSWER **Louis XIV** [the fourteenth] (prompt on "Louis")

[10] This country gained Gibraltar as a result of the Treaty of Utrecht. This country's first prime minister, Sir Robert Walpole, dealt with the bursting of South Sea Bubble.

ANSWER: **Great Britain** (accept **England**)

(Tossup 7) In a Tintoretto painting, this holy figure appears while bodies are being exhumed, only seen by an elder based on the commissioner Rangone. This saint, the founder of the Church of Alexandria, first met (\*) Peter while traveling through Asia Minor and was brought along to act as a Greek interpreter. This man names a biblical book that contains the line "The Sabbath was made for man, not man for the Sabbath," said in a synagogue by Jesus. For ten points, name this early Church leader that names one of the Four Gospels, with Matthew, Luke, and John.

ANSWER: **Saint Mark** the Evangelist

(Bonus 7) Jesus says "on this rock I will build my church" in a dialogue with this saint. For ten points each,

[10] Name this saint who was predicted to deny and disown Jesus three times before the rooster crows. This apostle is generally regarded as the first pope.

ANSWER: **Saint Peter** (accept **Simon**, accept **Simeon**, accept **Cephas**)

[10] Saint Peter was eventually killed by Nero in this manner, only he was placed upside down. Pontius Pilate reluctantly ordered Jesus to be killed in this manner.

ANSWER: **crucifixion** (accept **being hung on the cross** or other equivalents)

[10] Saint Peter denied being with Jesus at this location the night before his crucifixion. Jesus experienced the Agony in this location, where he said "the spirit is willing but the flesh is weak".

ANSWER: Garden of **Gethsemane**

(Tossup 8) This quantity squared divides velocity squared in the formula for the Lorentz factor. The Michelson-Morley experiment attempted to find differences in this quantity using an interferometer (\*), but found it was constant. In a vacuum, the frequency of an electromagnetic wave multiplied by its wavelength gives this quantity. Energy is equal to this constant times the speed of light squared, and it is symbolized with a  $c$ . Equal to approximately 300 million meters per second in a vacuum, For ten points, name this fastest speed in the universe.

ANSWER: **speed of light**

(Bonus 8) Industrial petroleum refineries often make use of the "fractional" type of this process, For ten points each.

[10] Name this technique used to separate mixtures based on their boiling points.

ANSWER: **distillation** (accept fractional distillation)

[10] Refluxing uses repeated cycles of boiling and this process to increase the purity of distillation. This process occurs when a gas is converted into a liquid.

ANSWER: **condensation** (accept condensing)

[10] This term refers to mixtures that cannot be separated by distillation, such as a 96% solution of ethanol and water.

ANSWER: **azeotropes**

(Tossup 9) "Pied Noir" Louis Althusser wrote a work titled for this philosopher that splits him into his young, Hegelian self and his older, more-weathered self. This figure pushed for the abolition of religion, describing it as the (\*) "Opium of the Masses." During his exile in Switzerland, Vladimir Lenin wrote a Short Sketch of this thinker that influenced him. For ten points, name this German writer of Capital and The Communist Manifesto.

ANSWER: Karl **Marx**

(Bonus 9) This author wrote a poem in which an abusive English soldier finally admits that a water-bearer is "a better man than I am." For ten points each,

[10] Name this English poet who wrote "Gunga Din" and children's adventure novels like Kim.

ANSWER: Rudyard **Kipling** (accept Joseph Rudyard Kipling)

[10] Kipling was born in Mumbai during the British Raj in what is now this country, where many of his works are set.

ANSWER: **India** (accept Republic of **India**; accept **Bharat Ganarajya**)

[10] This poem by Kipling encourages his son to "keep your head when all about you / are losing theirs," and concludes that by doing so, "you'll be a Man, my son."

ANSWER: **If-**

(Tossup 10) The "barrier" type of these features most often form as a result of breaking off of a spit. Chains of the "volcanic" type of these features can be created by the increased volcanism of hot spots. Small kinds of these features made of (\*) coral are called atolls. Large groups of these features are called archipelagos. For ten points, name these masses of land that are surrounded on all sides by water.

ANSWER: **Islands** (accept archipelagos)

(Bonus 10) This organism often comes in stony and soft forms, differentiated by the existence of an exoskeleton. For ten points each:

[10] Name these Cnidaria that create compact colonies known as Reefs.

ANSWER: **Corals**

[10] A coral gets its bright colors these dinoflagellates, largely in the family Symbiodiniaceae, that live symbiotically with coral.

ANSWER: **Zooxanthellae**



[10] Mass ejection of Zooxanthellae and other algae, in part due to chemical imbalances or other environmental pressures, led to this process of the coral losing its color and dying.

ANSWER: Coral **Bleaching**

## Tiebreaker

(Tossup 11) Hilbert's paradox of the Grand Hotel demonstrates properties of sets with this cardinality. Representations of this value include aleph-null and omega, which is countable. This value is the (\*) surface area of a Menger sponge and the perimeter of a Koch snowflake. This value is the sum of the harmonic series. The function one over x approaches this value as x approaches zero from the positive side. For 10 points, name this value that is the number of real numbers.

ANSWER: **infinity**

(Bonus 11) These seven problems were stated by the Clay Mathematics Institute and solving one results in a million dollar prize. For 10 points each:

[10] Name these problems that include P versus NP and the Poincare conjecture.

ANSWER: **Millennium Prize Problems**

[10] This unsolved Millennium Prize problem is about the "zeta function" of its namesake mathematician. This hypothesis concerns the distribution of prime numbers.

ANSWER: **Riemann** hypothesis

[10] The Riemann hypothesis states that all nontrivial zeros of the zeta function's continuation would have a real part of this value. The area of a triangle is its base times height times this number.

ANSWER: **one-half**