

## CEESA Bowl Round 6

### First Half

(Tossup 1) **A man with this surname gave the 1910 “Man in the Arena” speech and advocated the “strenuous life.” A woman with this surname wrote the syndicated column “My Day” in the 1940s and arranged for African-American singer Marian Anderson to perform at the Washington (\*) Monument.** That woman's husband gave weekly radio addresses called “Fireside Chats” to inspire confidence during the Great Depression and World War II. For 10 points, what surname was shared by Eleanor, Franklin Delano, and Theodore?

ANSWER: Roosevelt

(Bonus 1) This politician led the Coup of 18 Brumaire, which overthrew the Directory and led to his establishment as First Consul. For ten points each,

[10] Name this leader who became the Emperor of France in 1804. This man conquered much of Europe before being defeated at the Battle of Waterloo.

ANSWER: Napoleon I (or Napoleon Bonaparte)

[10] Napoleon was born on this island off of the coast of France, where he was born in the city of Ajaccio.

ANSWER: Corsica

[10] Before it was annexed by France, Corsica was controlled by this Italian city-state. This home city of Christopher Columbus also controlled the city of Caffa, which is where the Black Death is believed to have entered Europe.

ANSWER: Republic of Genoa

(Tossup 2) **End-plate potentials in this tissue bind to nicotinic acetylcholine receptors. This tissue's fast twitch fibers contain large amounts of sarcoplasmic reticulum which allow for fast but short term movements. This tissue also contains slow twitch fibers. This tissue is sometimes called (\*) striated.** For ten points, name this type of muscle tissue, that is contrasted with smooth and cardiac types.

Answer: skeletal muscle (accept striated muscle before read; prompt on muscle)

(Bonus 2) Answer the following about cysteine, for ten points each.

[10] Cysteine is one of these molecules that make up the building blocks of proteins.

ANSWER: amino acids

[10] Cysteine and methionine are the only two amino acids to contain this essential element, which is found within the reactive thiol side chain.

ANSWER: sulfur

[10] Bonds between cysteine are switched around by PDI, an enzyme found in this organelle that is continuous with the outer nuclear envelope and comes in both "rough" and "smooth" types.

ANSWER: endoplasmic reticulum (or ER)

(Tossup 3) **The Sem Priest oversees a ritual in this culture called the Opening of the Mouth. In one myth from this culture, a goddess uses snake poison as leverage to discover a god's secret name. This culture used the myth of (\*) Nut winning five "Demon Days" on which to give birth to even out their solar calendar. This culture believed that the Feather of Truth was used to weigh hearts in the afterlife by Anubis. For ten points, name this culture that worshipped pharaohs.**

ANSWER: Ancient **Egypt**

(Bonus 3) This hero released a dove through the Clashing Rocks to test if he would be able to sail through. For ten points each,

[10] Name this hero who led the Argonauts in their quest for the Golden Fleece. This hero was eventually killed by his wife Medea.

ANSWER: **Jason**

[10] Jason retrieved the Golden Fleece from King Aeëtes, who was a son of this god. Odysseus's ship was smited after his men ate the sacred cattle of this god.

ANSWER: **Helios**

[10] Aeëtes tasked Jason with sowing a field using these objects, which turned into hostile warriors. Athena instructed Cadmus to sow a field with these objects when he founded Thebes.

ANSWER: **dragon's teeth** (prompt on "teeth")

(Tossup 4) **The *quena* is an instrument of this type often used in the "love genre" of the indigenous Andean people, the Harawi. The duck, represented by the oboe, and the bird, represented by this instrument, are stalked by a young Soviet boy's cat in *Peter and the Wolf*. Tamino uses the (\*) "Magic" one of these instruments in a Mozart opera to turn sorrow to joy. For ten points, name this reedless woodwind instrument similar to its smaller cousin, the piccolo.**

Answer: **Flute** (prompt on woodwind before mention)

(Bonus 4) This man's works have been banned on Israeli air waves. For ten points each,

[10] Name this German composer of the *Ring Cycle*, that included pieces like *Das Rheingold* and *Siegfried*.

ANSWER: Richard **Wagner**

[10] Wagner's *Ring Cycle* includes this work, named for the warrior women of Norse myth.

ANSWER: *The* **Valkyrie**

[10] This other composer claimed the Ring Cycle was "divinely inspired" after an 1877 showing. This man created music to accompany countryman Henrik Ibsen's play *Peer Gynt*.

ANSWER: Edvard **Grieg**

(Tossup 5) **The tendency of forms of this substance to expand is measured by the shrink-swell capacity. High amounts of this material make up Vertisols. Smectite, kaolinite, and talc are some of the minerals that comprise this material. Silt, sand, (\*) and this material make up the three sides of a soil texture triangle. With a small particle size, For ten points, name this material that can be molded and fired in a kiln to create pottery.**

ANSWER: **clay** (prompt on soil)

(Bonus 5) This fixture had the codename "Freedom" while the plan for it was being synthesized by the Reagan administration. For ten points each:

[10] Name this artificial satellite that orbits earth, a multi-national effort to have an inhabited station.

ANSWER: **ISS** [Accept International Space Station]

[10] The first modular artificial satellite meant for habitation was created by the USSR, and it deorbited in 2001. This station takes its name for the Russian word for "Peace."

ANSWER: **Mir**

[10] An astronomer with a namesake constant names this space telescope, which during the "Cosmic Evolution Survey" discovered over 2 million galaxies.

ANSWER: **Hubble** Telescope

## Category Rounds

The categories are...

1. Former Soviet Republics
2. Hydrogen
3. *The Odyssey*

## Former Soviet Republics

Name the...

[10] the former Soviet Republic that recently changed the name of its capital of Astana to honor Nursultan Nazarbayev.

ANSWER: Republic of **Kazakhstan**

[10] Name the ethnic majority of the Central Asian former Soviet Republics; some people in this group include the Uighurs and Uzbeks.

ANSWER: **Turkic** People

[10] sea between Kazakhstan and Uzbekistan that lost 90 percent of its water due to Soviet irrigation projects.

ANSWER: **Aral** Sea

[10] fiber grown in Uzbekistan known as "White Gold," partially responsible for the emptying of the Aral Sea

ANSWER: **Cotton**

[10] city, once the capital of Tamerlane's empire, that now is the second-largest city in Uzbekistan.

ANSWER: **Samarkand**

[10] two Soviet republics that signed an armistice this week to end a conflict over the separatist region of Nagorno-Karabakh

ANSWER: Republic of **Armenia** and Republic of **Azerbaijan**

## Hydrogen

The Hydrogen atom...

**Part 1:** has a value of -13.6 eV for its ground state value of what quantity which comes in potential and kinetic forms.

ANSWER: ground state **energy** [accept potential **energy**; accept kinetic **energy**]

**Part 2:** is used as a toy model in the notably complex “mechanics” described by what word which refers to single units of energy?

ANSWER: **quantum** mechanics [accept **quanta**]

**Part 3:** is held together by the electrostatic force which is named for what French physicist who names the SI unit for charge?

ANSWER: Charles-Augustin de **Coulomb**

**Part 4:** was studied by what Danish physicist whose namesake model of the atom pictures electrons in circular orbit at distinct energy levels around the nucleus?

ANSWER: Niels Henrik **Bohr**

**Part 5:** has an exact solution to an equation named for what German physicist who devised a thought experiment about a cat which is “both dead and alive?”

ANSWER: Erwin **Schrödinger**

**Part 6:** is described by the  $n$ ,  $l$ , and  $m$  quantum numbers as well as a number describing what intrinsic angular momentum which equals plus or minus  $\frac{1}{2}$  for an electron?

ANSWER: **spin**

## The Odyssey

Identify the following people and things from the epic poem The Odyssey.

**Part 1:** The war that Odysseus tries for ten years to return from.

Answer: Trojan War

**Part 2:** Odysseus's wife, who weaves and unweaves a burial shroud so she doesn't have to marry someone else.

Answer: Penelope

**Part 3:** The sacred animals that Odysseus's men eat, angering Helios and the witch Circe

Answer: cattle (accept cows)

**Part 4:** The kind of animal that Circe turns Odysseus's men into when they reach her island.

Answer: pigs (accept swine)

**Part 5:** The nymph with whom Odysseus spends seven of the ten years of his journey home.

Answer: Calypso

**Part 6:** The enormous whirlpool that Helios sends Odysseus's ship toward, which sits across a strait from the monster Scylla.

Answer: Charybdis

## Second Half

(Tossup 6) This force causes objects to become charged in the tribo-electric effect. Amonton's law states that this force is independent of surface area. This force is described by a namesake coefficient, represented with the letter mu [mew], and comes in dynamic and kinematic varieties. Examples of this force include (\*) drag, and it causes your hands to warm up when you rub them together. For ten points, name this force that resists an object's motion.

ANSWER: friction (prompt on "drag" before mentioned)

(Bonus 6) This technique comes in both "transmission" and "scanning" types, For ten points each.

[10] Name this analytical technique that uses an accelerating beam of negatively-charged particles to image a sample.

ANSWER: electron microscopy (accept EM; prompt on microscopy, or microscope)

[10] For better imagery, samples in electron microscopy can be labeled with a suspension of nanoparticles made from this precious metal symbolized Au.

ANSWER: gold

[10] This prefix denotes a type of electron microscopy that rapidly freezes samples before imaging them at subzero temperatures. This prefix generally refers to conditions that are very cold.

ANSWER: cryo- (accept **cryo-EM**)

(Tossup 7) U.S. chess champion Bobby Fisher sought asylum in Japan and Iceland after breaking a travel order to play a match in this country. This country's National Liberation Army was led by a man who threatened to "send one" killer to Moscow in response to Soviet sponsored assassination attempts. (\*) The breakup of this country led to the independence of Serbia and Croatia. For ten points, name this Slavic Balkan country led in World War II by Josip Broz Tito.

ANSWER: Yugoslavia

(Bonus 7) Richard Neville, the Earl of Warwick, was known as the "kingmaker" during this conflict. For ten points each,

[10] Name this conflict between the House of Lancaster and House of York. This conflict is named for the symbols used to represent the two houses in the conflict.

ANSWER: Wars of the Roses

[10] The Wars of the Roses culminated with this battle, during which Richard III was killed. This battle was long believed to have taken place at Ambion Hill in Leicestershire.

ANSWER: Battle of Bosworth Field

[10] This first Tudor king rose to power after the Battle of Bosworth Field. This ruler put down a rebellion led by the pretender Lambert Simnel during the battle of Stoke Field.

ANSWER: Henry VII

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(Tossup 8) In one series of paintings, a holder of this position is shown with a face inspired by the nurse who was killed on the Odessa Steps in the movie *Battleship Potemkin*. The painting *Head VI* shows a holder of this position wearing a purple top and surrounded by the shape of a glass cube. (\*) Francis Bacon created a series showing the holder of this position "screaming" that were inspired by a Diego Velasquez portrait. For ten points, what position was held by Innocent X?

ANSWER: pope

(Bonus 8) This artist included a Latin inscription translating as "Charles I, King of Great Britain" in his painting of the English king "at the Hunt." For ten points each,

[10] What Dutch painter lends his name to a distinctive style of facial hair featuring a moustache and a goatee?

ANSWER: Anthony van Dyck

[10] This British queen had been reigning for over forty years when she was depicted wearing an orange gown in the *Rainbow Portrait*, which is usually credited to Marcus Gheeraerts the Younger.

ANSWER:: Elizabeth I (or Elizabeth Tudor)

[10] Charles Robert Leslie, John Martin, and Alfred Chalon were among the many artists to depict the coronation of this other British queen. This woman and her family posed on the Isle of Wight for the first ever royal photograph.

ANSWER: Victoria

(Tossup 9) A poet wrote that this object "will make three men" with the poet's shadow when he sees "its reflection and mine in the wine cup." This object, "alas, is no drinker of wine" in a pailu poem written during the (\*) Tang Dynasty by a friend of Du Fu. Li Bai wrote "amongst the flowers, I am alone" in a poem about "drinking alone by" the light of, for ten points, what celestial object that orbits the Earth?

ANSWER: moon (accept *Drinking Alone by Moonlight*)

(Bonus 9) In this collection's frame story, a group of pilgrims to the shrine of Thomas Becket stop at the Tabard Inn and tell stories to each other. For ten points each,

[10] Name this collection of stories told by characters like the Knight, the Miller, and the Nun's Priest.

ANSWER: The Canterbury Tales

[10] This Middle English author wrote *The Canterbury Tales* and *The Parlement of Foules*.

ANSWER: Geoffrey Chaucer

[10] This pilgrim from *The Canterbury Tales* has a gap in her front teeth, has had five husbands, and tells a story about a knight who learns what women want.

ANSWER: *the* Wife of Bath (accept *Alysoun*; accept *Alys*; prompt on partial answer)

(Tossup 10) **This leader wrote the book *The Permanent Revolution* in order to critique his rival's concept of "socialism in one country." This leader ordered the suppression of the Kronstadt Rebellion while he was the head of the (\*) Red Army. While living in Mexico, this leader was murdered with an ice axe. For ten points, name this Russian Marxist and revolutionary, a rival of Joseph Stalin.**

ANSWER: Leon **Trotsky**

(Bonus 10) British bombers attacked an airfield at this location during the "Black Buck" raids. For ten points each,

[10] Name this island chain that was invaded by the forces of Leopoldo Galitieri in 1982. Margaret Thatcher's British forces ended a conflict in this location by recapturing its capital of Stanley.

ANSWER: **Falkland** Islands (or the **Malvinas**)

[10] A military junta in this nation attempted to capture the Falkland Islands from Britain. The "Dirty War" occurred in this nation under the reign of Jorge Videla, who controlled this country from Buenos Aires.

ANSWER: **Argentina**

[10] This other leader of Argentina was supported by many descamisados, or "shirtless ones," during his three terms as president. This man's second wife was an actress nicknamed "Evita."

ANSWER: Juan **Peron**

## Tiebreaker / Backups

(Tossup 11) **Integration can be simplified by using decomposition into "partial" types of these constructs. Egyptian ones of these entities are sums of their unit types, and can express all rational numbers. A "continued" one of these entities that contains all (\*) ones is equivalent to the golden ratio. All rational numbers can be expressed as, for 10 points, what entities with numerators and denominators such as one-third?**

ANSWER: **fractions**

(Bonus 16) Relative frequency distribution can be shown on these graphs. For 10 points each:

[10] Name these graphs similar to bar graphs that are used for continuous data. Unlike bar graphs, they commonly do not have gaps between bins.

ANSWER: **histograms**

[10] A histogram of this distribution will peak in the middle. This distribution, sometimes named for Gauss, takes the shape of a bell curve.

ANSWER: **normal** distribution

[10] 68% of the data in a normal distribution falls within this many standard deviations of the mean. This number is the sum of the heights of a histogram when normalized to relative frequency, and is also the highest possible probability.

ANSWER: **one** [or **100%**]