

Round 8

First Half

(Tossup 1) **Sec proteins allow translation directly across a membrane and into this organelle via a translocon. A form of this organelle in muscle cells releases calcium ions to stimulate contraction. COPII targets vesicles to the Golgi apparatus from this organelle, which has folds called (*) cisternae. Its membrane is continuous with the outer nuclear envelope. For ten points, name this eukaryotic organelle whose “rough” type is studded with ribosomes.**

ANSWER: endoplasmic reticulum (accept ER; accept rough ER; accept smooth ER; accept sarcoplasmic reticulum)

(Bonus 1) Seven natural satellites in our solar system have a radius of over 1000 kilometers. For ten points each,

[Part A] Name the moon orbiting Jupiter which, with a radius of over 2600 kilometers, is the largest moon in our solar system.

ANSWER: Ganymede

[Part B] Name the moon on which the Huygens [hoy-gins] space probe landed in 2005 after separating from the Cassini space craft.

ANSWER: Titan

[Part C] Name the moon which is the only moon in the solar system to revolve retrograde to its planet orbit, a moon which may have been a captured Kuiper Belt object.

ANSWER: Triton

(Tossup 2) **This person experienced seizures and visions after being hit in the head by a heavy metal weight as a child. This person initially worked for the Union army as a cook before serving as a scout. This woman guided a raid on Combahee Ferry, and she earlier assisted (*) John Brown in his raid on Harpers Ferry. This woman will soon be added to the front of the Twenty-Dollar bill. For ten points, name this abolitionist who rescued many slaves via the Underground Railroad.**

ANSWER: Harriet Tubman

(Bonus 2) These people lost the Battle of Ad Decimum. For ten points each,

[Part A] Name this Germanic barbarian tribe which was destroyed by Belisarius in North Africa. The name of these people is the source of the English word for deliberate destruction of public property.

ANSWER: Vandals

[Part B] Belisarius was sent to attack the Vandals by this Byzantine emperor, who faced the Nika Riots and built the Hagia Sophia.

ANSWER: Justinian

[Part C] The Hagia Sophia is located in this city, the capital of first the Byzantine Empire and later the Ottoman empire.

ANSWER: Constantinople (accept Istanbul; do not accept “Byzantium”)

(Tossup 3) **This author wrote a novel in which Oliver Edwards marries Elizabeth, the daughter of Marmaduke Temple. In another novel, this author wrote about the villain “Le Renard Subtil” who assists the Marquis de Montcalm and kidnaps Cora Munro. In that novel, (*) Magua kills Chingachgook’s son Uncas before plummeting to his death after being shot by Natty Bumppo. For ten points, name this author who wrote *The Leatherstocking Tales*.**

ANSWER: James Fenimore Cooper

(Bonus 3) In this novel, Absalom is sentenced to death for the murder of Arthur Jarvis. For ten points each,

[Part A] Name this work in which Reverend Stephen Kumalo journeys to Johannesburg to help his sister Gertrude and find his son Absalom.

ANSWER: Cry, the Beloved Country

[Part B] *Cry, the Beloved Country* was written by this author who also wrote *Too Late the Phalarope*

ANSWER: Alan Paton

[Part C] Alan Paton was an author from this country, where he died in the city of Durban.

ANSWER: South Africa

(Tossup 4) **This artist created a canvas of a blue-skinned Richard Nixon with the caption VOTE McGOVERN. This artist included Silver Car Crash in his Death and Disaster series. This coordinator of Exploding Plastic Inevitable events created silkscreen prints of (*) Mao Zedong and Marilyn Monroe. For ten points, name this Pop artist who worked in “the Factory” and made paintings of Campbell’s Soup Cans.**

ANSWER: Andy Warhol

(Bonus 4) In this opera, the title character's similarities with an assassin are compared in the aria "Pari siamo." For 10 points each:

[Part A] Name this opera in which the title jester directs Sparafucile to attack the Duke of Mantua, only to have his daughter Gilda killed instead.

ANSWER: Rigoletto

[Part B] This operatic composer of Rigoletto also composed Il Trovatore and La Traviata.

ANSWER: Guiseppe Verdi

[Part C] Verdi also composed one of these works that uses two choruses in its Sanctus movement. Franz Sussmayr completed Mozart's unfinished example of one of these religious pieces.

ANSWER: Requiem mass

(Tossup 5) **The Three Grottoes is part of a core text of this religion, the Daozang. An early version of this religion drew its cosmological notions from the School of Naturalists. This religion is split into two main groups, the (*)** Quanzhen and Zhengyi schools. The leading ethical concept of this religion translates to "action without intention", or wu-wei. For ten points, name this Chinese religion that emphasises living in harmony with "the way".

ANSWER: Taoism

(Bonus 5) Individuals who have memorized this entire work is called a Hafiz. For ten points each,

[Part A] Name this central religious text of Islam.

ANSWER: Quran (Accept Koran)

[Part B] Muslims believe that the Quran was revealed to Prophet Muhammad through this archangel.

ANSWER: Gabriel

[Part C] The Quran is often used alongside sunnah, qiyas and ijma to interpret this system of Islamic religious law. This system of religious law is practiced in many Middle Eastern countries such as Saudi Arabia.

ANSWER: Sharia law

(Tossup 6) **The MAR divides this body of water longitudinally into two halves. Bouvet Island in this body of water is the most remote island in the world. The Milwaukee Deep in the (*)** Puerto Rico Trench is the deepest point in this body of water. Other islands in the body of water include the Tristan da Cunha archipelago and the Falkland Islands. The world's largest slave trade extended across, for ten points, what second largest ocean in the world?

ANSWER: Atlantic Ocean

(Bonus 6) This city contains the Ginza area and the Imperial Palace. For ten points each,

[Part A] Name this capital city of Japan.

ANSWER: Tokyo

[Part B] Tokyo is located on this island, the largest of the Japanese home islands.

ANSWER: Honshu

[Part C] This structure in Tokyo is the tallest tower in the world and the second tallest structure behind the Burj Khalifa.

ANSWER: Tokyo Skytree

(Tossup 7) **One of this author's protagonists falls asleep in a barrel of apples and overhears men plotting a mutiny. Squire Trelawney hires Captain Smollett to lead a crew in a novel by this author that includes Jim Hawkins and (*) Long John Silver.** In another novel by him, Dr. Lanyon tells Mr. Utterson about his fear of a man who murders Danvers Carew. For ten points, name this author of *Treasure Island* and *The Strange Case of Dr. Jekyll and Mr. Hyde*.

ANSWER: Robert Louis Stevenson

(Bonus 7) One poem by this author states that "A terrible beauty is born". For ten points each,

[Part A] Name this Irish author of *Easter, 1916* and *The Second Coming*.

ANSWER: William Butler Yeats

[Part B] This English-American author wrote the line "In the nightmare of the dark / All the dogs of Europe bark" in this poem *In Memory of W.B. Yeats*.

ANSWER: Wystan Hugh Auden

[Part C] W.H. Auden also wrote "We must love one another or die" in this poem titled for the day World War II began.

ANSWER: September 1, 1939

(Tossup 8) **This theory's proponents use the azimuthal equidistant projection. It is a myth that Christopher Columbus wasn't given funding because his sponsors believed in this theory, and it also false that his crew were afraid of sailing off a (*) non-existence edge.** This theory is disproved by seeing that the bottom part of a ship is hidden when it is far away in the horizon. For ten points, name this false belief that the Earth is not spherical.

ANSWER: flat earth theory

(Bonus 8) A reaction is said to be in this condition when a reaction shows a double arrow. For 10 points each:

[Part A] Name this condition in which the forward and reverse reaction rates are equal.

ANSWER: dynamic equilibrium

[Part B] This principle focuses on shifts in equilibrium whenever stress affects the system. It was named after a French scientist.

ANSWER: Le Chatelier's principle

[Part C] The reverse reaction is favored when the equilibrium constant is less than this number. If the constant is greater than this number, the forward reaction is favored instead.

ANSWER: 1

Sixty-Second Rounds

The categories are ...

1. African Authors
2. France in World War II
3. Nervous System

AFRICAN AUTHORS

In the lives of African authors, name the...

(1) Author of *Long Walk to Freedom* who was the first president of post-apartheid South Africa.

ANSWER: Nelson Mandela

(2) Native country of authors Chinua Achebe and Ben Okri.

ANSWER: Nigeria

(3) Protagonist of Chinua Achebe's novel *Things Fall Apart*.

ANSWER: Okonkwo

(4) Nigerian playwright who wrote *Death and the King's Horseman* and *The Lion and the Jewel*.

ANSWER: Wole Soyinka

(5) Home country of Naguib Mahfouz, who was famous for his *Cairo Trilogy*.

ANSWER: Egypt

(6) The setting of Isak Dinesen's *Out of Africa* and Ngugi wa Thiong'o's *Petals of Blood*.

ANSWER: Kenya

FRANCE IN WORLD WAR II

Name the...

(1) Country led by Hitler which invaded it in 1940 and swiftly defeated it.

ANSWER: Nazi **Germany**

(2) Type of tactic employed by that country's invading forces which translates to "Lightning war".

ANSWER: **Blitzkrieg**

(3) French general who led the Free French forces and later became president of France.

ANSWER: Charles **De Gaulle**

(4) Ineffective French line of fortifications which invading forces successfully circumvented.

ANSWER: **Maginot Line**

(5) French regime headed by Marshal Petain which formed after the surrender of France.

ANSWER: **Vichy** France (Accept **French State**)

(6) Allied nation which attacked the French fleet at Mers El Kebir.

ANSWER: Great **Britain** (Accept **UK**)

NERVOUS SYSTEM

Name the...

(1) Organ that serves as the centre of the nervous system.

ANSWER: **Brain**

(2) Condition that can result from damage to the nervous system, featuring the loss of sensation or movement.

ANSWER: **Paralysis**

(3) Long and thin structure divided into segments which is located within the spine.

ANSWER: **Spinal Cord**

(4) Field of science that studies the nervous system.

ANSWER: **Neuroscience** (Accept **Neurobiology**)

(5) Structure in the nervous system that permits an electrical or chemical signal to another neuron or to a target cell.

ANSWER: **Synapses**

(6) The type of matter present in many parts of the nervous system named for its colour. It contains more cell bodies than the similarly named white matter.

ANSWER: **Grey** matter

Second Half

(Tossup 9) **Surprise attacks launched by this country include the destruction of the Osirak nuclear reactor and Operation Focus. It mistakenly attacked the USS Liberty during the Six-Days war, a conflict in which it decisively defeated (*) multiple Arab states.** For the point, name this Middle Eastern country which fought a series of conflicts with its Arab neighbors, home to Tel Aviv and Jerusalem.

ANSWER: Israel

(Bonus 9) The leader of this terrorist organization was killed by Seal Team 6 in 2011. For ten points each, [Part A] Name this terrorist group once led by Osama Bin Laden which carried out the 9-11 attacks.

ANSWER: Al Qaeda

[Part B] Al Qaeda forces in Iraq were the foundation of this terrorist organization which briefly ruled a large “caliphate” in Iraq and Syria. This organization is currently led by Abu Bakr Al-Baghdadi.

ANSWER: ISIS (Accept ISIL, accept Islamic State, accept Daesh)

[Part C] This West African terrorist group pledged allegiance to ISIS in 2015. In 2014, this terrorist group kidnapped 276 schoolgirls from Chibok in Nigeria.

ANSWER: Boko Haram

(Tossup 10) **In February 2018, mercenaries from this country’s Wagner group attacked American forces during the Battle of Khasham. This country’s troops fought in the Battle of Debaltseve while supporting separatist forces in the (*) Donbass region.** “Little green men” were used by this country during its annexation of a neighboring peninsula in 2014. For ten points, name this country which annexed the Crimean peninsula from Ukraine and is led by Vladimir Putin.

ANSWER: Russia

(Bonus 10) From 2017-2018, this lawyer was the deputy finance chairman of the Republican National Committee. For ten points each,

[Part A] Name this lawyer who allegedly made a payment to Stormy Daniels and was sentenced to prison for lying to a Senate committee. In February 2019, this lawyer testified before the House Oversight Committee.

ANSWER: Michael Cohen

[Part B] Michael Cohen served as a lawyer from 2006-2018 for this current President of the United States.

ANSWER: Donald Trump

[Part C] President Trump has had many disputes with members of this profession, including Jim Acosta of CNN.

ANSWER: Reporters (Accept the press)

(Tossup 11) **One book about these creatures details how they make hail fall on neighbors' fields and cause cows to stop producing milk. That book was written in 1487 by Heinrich Kramer and Jacob Sprenger. Many midwives are these creatures, and in America, (*) Tituba was accused of being one of these people. The Malleus Maleficarum details these people and how they should be tried. For ten points, what were these people hunted in Salem, Massachusetts?**

ANSWER: Witch (accept Wizard; prompt on "Pagan")

(Bonus 11) The island of Crete was the location of several famous Greek myths and characters. For ten points each, name them.

[Part A] Name this palace on Crete that King Minos lived in, and was the centre of the Minoan Civilisation

ANSWER: Knossos

[Part B] Name this creature which was 'part man part bull', and was killed by the hero Theseus.

ANSWER: Minotaur

[Part C] This figure tried to escape from Crete using wings made by his father Daedalus, only for him to fly too close to the sun and fall to his death.

ANSWER: Icarus

(Tossup 12) **A section of this book features Melchizedek, who analogizes Christianity, Islam, and Judaism to a rich man's three rings. The Marquis of Saluzzo pretends to murder his children in this work to test the loyalty of (*) Griselda. This work's main characters include Filostrato, Fiammetta, and Pampinea, and its stories are told by ten Florentines fleeing the Black Death. For ten points, name this collection of stories by Giovanni Boccaccio.**

ANSWER: The Decameron

(Bonus 12) In this novel, Quentin commits suicide by drowning. For ten points each,

[Part A] Name this novel set in Jefferson, Mississippi which is centered on the Compson family.

ANSWER: The Sound and the Fury

[Part B] *The Sound and the Fury* was written by this American author who also wrote *As I Lay Dying*

ANSWER: William Faulkner

[Part C] William Faulkner also wrote this work about the rise and fall of Thomas Sutpen who created a plantation called Sutpen's Hundred.

ANSWER: Absalom, Absalom

(Tossup 13) **This man examined the nature of given information in geometrical problems in his work *Data*. Papyrus Oxyrhynchus 29 is a fragment of this man's most famous work which contains this man's parallel postulate and covers this man's namesake system of (*) geometry. The *Elements* was written by, for ten points, what mathematician from Alexandria often referred to as the "father of geometry"?**

ANSWER: Euclid

(Bonus 13) Prior to its proof, this theorem was in the Guinness Book of World Records for being the most difficult mathematical problem. For ten points each...

[Part A] Name this problem which states that no three positive integers a, b, and c satisfy the equation $an + bn = cn$ for any integer value of n greater than 2.

ANSWER: Fermat's Last Theorem

[Part B] Pierre de Fermat wrote his Last Theorem in the margin of a copy of this work by the mathematician Diophantus.

ANSWER: Arithmetica

[Part C] Sir Andrew Wiles, a professor at this school in New Jersey, proved Fermat's Last Theorem in 1994.

ANSWER: Princeton University

(Tossup 14) **The electric charge divided by this unit is Faraday's constant. The unit of Daltons is defined as one gram per this other unit. In a chemical reaction, this is the implied unit for every product and reactant listed. Before 2019, this unit was defined as exactly the (*) number of particles in 12 grams of carbon-12, which comes out to approximately Avogadro's number. For ten points, name the SI base unit for amount of substance.**

ANSWER: mole (accept mol)

(Bonus 14) Charles Darwin wrote the first book on insectivorous plants in 1875. For ten points each,

[Part A] One of the plants which Darwin did not write about was this plant of the genus *Dionaea* [dee-on-ay-ah] which today lives in the nutrient poor bogs of the coastal regions of the Carolinas. Touching trigger hairs on specialized leaves triggers the specialized leaves to close.

ANSWER: Venus flytrap

[Part B] In these plants specialized leaves form a chamber which holds digestive fluids. Insects fall into the chamber, and unable to escape, drown and are digested.

ANSWER: Pitcher plants (accept: Pitchers)

[Part C] These members of the genus *Drosera*, have small tentacles covered in fragrant, adhesive fluid which hold insects before the tentacles or leaf curl around it to complete digestion.

ANSWER: Sundews

(Tossup 15) **This composer’s Fifth Symphony opens with a flute quoting Luther’s hymn “Ein Feste Burg.” This composer used saltarello rhythms in the finale of his Italian Symphony. This composer wrote his Hebrides Overture after a visit to Fingal’s Cave. A piece by this composer opens with a (*) dancing theme imitating fairies and features a “Wedding march.” For ten points, name this composer of incidental music to A Midsummer Night’s Dream.**

ANSWER: Jakob Ludwig Felix Mendelssohn Bartholdy

(Bonus 15) This man is depicted holding a crown in a painting titled *The Coronation of “this man”*. For ten points each,

[Part A] Name this French Emperor who was depicted “crossing the Alps” in another painting.

ANSWER: Napoleon I Bonaparte (accept either underlined portion)

[Part B] *The Coronation of Napoleon* and *Napoleon Crossing the Alps* were painted by this French artist, the official court painter of Napoleonic France.

ANSWER: Jacques-Louis David [dah-VEED]

[Part C] David also painted *The Oath of the Horatii* [ho-RAH-tee-ee or ho-RAY-she-eye], featuring a group of brothers from this city.

ANSWER: (ancient or classical) Rome

(Tossup 16) **This ruler’s attempted marriage with Marie Mancini was barred by her uncle, who also was his finance minister. This ruler’s queen was Maria Theresa of Spain, which granted the right of Spanish succession to his grandson, (*) Philip V. Notable lovers of this ruler include Madame de Montespan, who he spent time with at the Palace of Versailles. Cardinal Mazarin served, for ten points, what French monarch, who was nicknamed the Sun King?**

ANSWER: Louis XIV (prompt on “Roi Soleil” before the mention of “Sun King”; prompt on “Louis”)

(Bonus 16) Mark Felt was revealed to be the anonymous informant during this scandal. For ten points each,

[Part A] Name this scandal which was investigated by Bob Woodward and Carl Bernstein that led to its eventual subject declaring “I am not a crook”, only to resign later.

ANSWER: Watergate

[Part B] Watergate led to the ascension of Gerald Ford, who pardoned this president for his role in Watergate.

ANSWER: Richard Nixon (or Richard Milhous Nixon)

[Part C] Richard Nixon was previously a senator from this state. Other Republicans from this state included Ronald Reagan, who banned the public use of firearms in the Mulford Act while governor, leading to a protest by the Black Panthers in this state’s capital.

ANSWER: State of California

Tiebreakers

(Tossup 17) **This president's personal secretary, Orville Babcock, was implicated in tax dodging scandal by the whiskey industry. His Vice President, Schuyler Colfax, was also implicated in another scandal in the railroad industry. Those scandals were the (*) Whiskey Ring and the Credit Mobilier scandals. For ten points, name this president who succeeded Andrew Johnson but is more well known for leading the victorious Union armies in the Civil War.**

ANSWER: Ulysses Simpson Grant

(Bonus 17) Delta operatives Gary Gordon and Randy Shughart lost their lives defending a fallen helicopter in this country. For ten points each,

[Part A] Identify this country, the site of the "Black Hawk Down" incident as American troops were pinned down at the battle of Mogadishu.

ANSWER: Somalia

[Part B] Backlash from Somalia hurt this American president, who also faced allegations of misconduct with the White House intern Monica Lewinsky despite his marriage to Hillary.

ANSWER: Bill Clinton

[Part C] American forces in Somalia were a part of UNOSOM, an intervention mission undertaken by what international organization which features the Security Council and General Assembly?

ANSWER: United Nations (Accept UN)