

Round 5

First Half

(1) **One character in this novel seeks a fresh start in Plymouth after serving a sentence at King's Bench Prison. A flower pot is used to symbolize the idealism of Tommy Traddles in this work, which was written just after (*) *Dombey and Son*.** In this novel, Little E'mly moves to Australia with a character who serves as a clerk to the scheming Uriah Heep. For ten points, name this autobiographical coming-of-age novel by Charles Dickens.

ANSWER: **David Copperfield** (accept *The Personal History, Adventures, Experience and Observation of David Copperfield the Younger of Blunderstone Rookery (Which He Never Meant to Publish on Any Account)*)

(bonus) In this play, Caliban tries to help Trinculo and Stephano assassinate a sorcerer. For ten points each,

* Name this Shakespeare play which begins when a sorcerer shipwrecks Ferdinand and a group of other noblemen on his island by summoning the title storm.

ANSWER: *The Tempest*

* This sorcerer, the former Duke of Milan, summons that tempest which shipwrecks Ferdinand in order to set him up with this man's daughter, Miranda.

ANSWER: **Prospero**

* After arranging Ferdinand and Miranda's marriage, Prospero orders a performance to bless the couple that features a depiction of this Roman goddess, who governed married life.

ANSWER: **Juno** (do not accept or prompt on "Hera")

(2) **In the final chapter of the Book of Deuteronomy, this man ascends Mount Nebo to view the land of Canaan before dying. After fleeing to Midian, this man encountered the Angel of the Lord, and saw a burning (*) bush on Mount Horeb.** This man led his people out of Egypt, after which he went to Mount Sinai to receive the Ten Commandments. For ten points, name this leader of the Israelite exodus who prayed for God to part the Red Sea.

ANSWER: **Moses** (accept **Moshe** Rabbenu; accept **Musa**)

(bonus) This man's birthplace of Lumbini is a popular pilgrimage site in Nepal. For ten points each,

* Name this spiritual teacher venerated by followers of the Mahayana and Zen branches of his namesake belief system.

ANSWER: The **Buddha** (accept either underlined portion of **Siddhartha Gautama**)

* The Buddha achieved enlightenment under this specific tree with many supposed "descendants" living today.

ANSWER: **Bodhi** Fig Tree

* *Dukka*, or suffering, is one of a set of this many noble truths that are central to Buddhist teachings.

ANSWER: **Four** Noble Truths (or **catvāri** āryasatyāni)

(3) The transfer of this quantity through deformable solids is described by Cauchy's [[koh-SHEES]] equations. Force is equal to the time derivative of this quantity according to Newton's Second Law. Kinetic energy is equal to this quantity squared, divided by two times an object's mass. This quantity, which is symbolized "p," is not conserved during an inelastic collision. For ten points, name this quantity equal to mass times velocity.

ANSWER: Linear **Momentum** (accept Translational **Momentum**; accept **P** before mentioned; do not accept or prompt on "Angular Momentum" or "Rotational Momentum")

(bonus) This chemist discussed thirty-three elements in his *Elementary Treatise on Chemistry*. For ten points each,

* Name this chemist, who is often considered the "father of modern chemistry." A nobleman, he was executed via guillotine during the French Revolution.

ANSWER: Antoine **Lavoisier** [[luh-vwah-see-EH]]

* Lavoisier did not originate this law, but through it he pioneered stoichiometry [[stoy-kee-AH-meh-tree]]. Lavoisier's experiments established this law as a fundamental concept concerning reactants and products in a chemical reaction.

ANSWER: Law of **Conservation** of Mass (do not accept "conservation of energy" or "1st law of thermodynamics")

* This French civil engineer included Lavoisier's name among the 72 names engraved on his namesake tower as an "invocation of science."

ANSWER: Gustave **Eiffel** [[ai-FEHL]] (accept **Eiffel** Tower; accept Tour **Eiffel**)

(4) **This film's soundtrack includes a recording of the finale from the opera *Aur, re d'Ormus* [[ah-KSOOR reh dohr-MOO]]. Miloš [[MEE-loash]] Forman won his second Academy Award for Best Director for this film. This film's frame story presents the confession of an old man in a sanatorium, who tricked an artist on his (*) deathbed into sharing the ideas for his *Requiem*. Antonio Salieri's [[sah-LYEH-dees]] rivalry with an Austrian composer is shown in, for ten points, what movie titled for Mozart's middle name?**

ANSWER: **Amadeus**

(bonus) This man extensively sketched the tiling patterns at the Andalusian palaces of Alhambra [[al-AHM-brah]], inspiring many of his tessellations. For ten points each,

* Name this Dutch visual artist known for his impossible drawings of circular designs.

ANSWER: M.C. **Escher** (accept Maurits Cornelis **Escher**)

* Escher's *Relativity* depicts an impossible triangle created by three of these things; he later showed a "House of" these things in a 1951 drawing.

ANSWER: **Stairs** (accept *House of Stairs*; accept equivalents such as **Stairways** or **Staircases**)

* An Escher self-portrait is titled for [one of these body parts] *with Reflecting Sphere*. Two of these body parts appear to be producing each other in a different Escher drawing.

ANSWER: **Hands** (accept **Hand** *with Reflecting Sphere*; accept *Drawing Hands*)

(5) **People who faced persecution during this movement were grouped into the "Five Black Categories," including "bad-influencers." During this period, urban youth were sent to farming villages in the Down to the Countryside Movement. The (*) Red Guards formed during this movement, which included mass distribution of the *Little Red Book*. For ten points, name this decade-long purge movement in China launched by Mao Zedong.**

ANSWER: Great Proletarian **Cultural Revolution** (or **Wénhuà dàgémìng**)

(bonus) This policy led to the separation of one group into territories known as Bantustans. For ten points each,

* Name this policy of racial segregation in South Africa, which Nelson Mandela helped bring to an end.

ANSWER: **Apartheid** (accept **Aparthood**)

* During the apartheid era, the introduction of Afrikaans as the language of education into schools led to the Soweto uprising in a township within this city, the most populous city in South Africa.

ANSWER: **Johannesburg**

* This predecessor to Nelson Mandela as president of South Africa won a Nobel Peace Prize for helping bring about the end of apartheid.

ANSWER: F.W. **de Klerk** (accept Frederik William **de Klerk**)

(6) **This adjective describes a distribution that approaches the Poisson [[pwah-SOHN]] distribution at large values of "n" and models independent trials using only "success" and "failure" outcomes. Coefficients described by this word define the ways to choose (*) "k" elements from a set of "n," and make up the rows of Pascal's triangle. A theorem concerning algebraic expansions is described by, for ten points, what word referring to polynomials with two terms, such as "a plus b"?**

ANSWER: **Binomials** (accept **Binomial** theorem; accept **Binomial** coefficients; accept **Binomial** distribution)

(bonus) Singular types of these structures cannot be inverted. For ten points each,

* Name these rectangular arrays of numbers arranged in rows and columns.

ANSWER: **Matrix** (accept **Matrices**)

* A square matrix only has an inverse if this quantity does not equal zero. This quantity equals "ad minus bc" for a 2-by-2 matrix.

ANSWER: **Determinant**

* The product of a matrix with its inverse gives this matrix, which includes ones along its main diagonal and zeros everywhere else.

ANSWER: **Identity** Matrix (accept **Unit** Matrix)

(7) **This number features in one novel in which the ETO creates a video game partly named for this number. A set of this many commandments, including "A robot may not injure a human being or, through (*) inaction, allow a human being to come to harm," appears in Isaac Asimov's *Robot* series. Cixin Liu [[SEE-SHIN LOO]] wrote a novel titled after a body problem of this number. For ten points, give this number of books in Liu's *Remembrance of Earth's Past* trilogy.**

ANSWER: **Three** (accept **Three**-Body Problem; accept **Three** laws of robotics)

(bonus) In this work, Natasha is left ill after learning that Anatole has married another woman. For ten points each,

* Name this lengthy Russian novel centered on Napoleon's invasion of Russia by Leo Tolstoy.

ANSWER: **War and Peace** (accept **Voyna i mir**)

* *War and Peace* often employs dialogue in this non-Russian language which was commonly spoken by Russian aristocrats.

ANSWER: **French** (accept **Français**)

* In the novel, Hélène Kuragina marries this son of a wealthy noble. This character shoots Dolokhov in a duel after learning of his wife's affair.

ANSWER: Pyotr **Pierre** Kirillovich **Bezukhov** [[BEH-zhoo-koff]] (accept either underlined portion)

(8) **The only Asian country where this language is an official language is Timor-Leste. Regions whose people speak this language are collectively known as "Lusophone." In Africa, this language's speakers are centered in the metropolitan areas of (*)** Maputo and Luanda. This language is the official language of Guinea-Bissau, Angola, and Mozambique. For ten points, name this Romance language spoken in Brazil as well as in an Iberian neighbor of Spain.

ANSWER: **Portuguese** (accept **Português**; accept Língua **Portuguesa**)

(bonus) The term for this type of document comes from the Latin for "paper that has to be seen." For ten points each,

* Name these travel documents that may authorize the right of people to enter a country. Different categories of these documents exist for tourist and work activities.

ANSWER: Travel **Visas** (accept Charta **Visa**)

* Unlike a visa, this document allows for permanent residency in the United States. It is colloquially named for the color in which it has historically appeared.

ANSWER: **Green card** (accept **Permanent resident card**)

* In 2021, President Biden ordered Homeland Security to review this policy with a two-word name, instated in 2019 and stating that legal immigrants who had used a variety of government benefits for more than 12 months would be ineligible for permanent residency. What is the two-word name for this policy?

ANSWER: **Public Charge** Policy (or **Public Charge** rule)

Halftime

The categories are:

1. Short Stories
2. Explorers
3. Earthquakes

Short Stories

Name the...

(1) Author credited with first using twist endings, as in his "The Gift of the Magi."

ANSWER: O. **Henry** (accept William Sydney **Porter**)

(2) Irish author whose short story "The Dead" ends his collection *Dubliners*.

ANSWER: James **Joyce**

(3) Schoolteacher pursued by the Headless Horseman in "The Legend of Sleepy Hollow."

ANSWER: **Ichabod Crane** (accept either underlined portion)

(4) French author of "Ball of Fat" and "The Necklace."

ANSWER: Guy de **Maupassant** [[maw-puh-SAHNT]]

(5) Title object that grants wishes in a W.W. Jacobs story.

ANSWER: *The **Monkey's Paw***

(6) African-American anthropologist and author of 1933's "The Six Gilded Bits."

ANSWER: Zora Neale **Hurston**

(7)

ANSWER:

(8)

ANSWER:

Explorers

Name the...

(1) Italian who led four Spanish Expeditions to the New World starting in 1492.

ANSWER: Christopher **Columbus** (accept Cristóbal **Colón**; accept accept Cristoforo **Colombo**; accept Cristoffa **Corombo**)

(2) Conquistador who conquered Montezuma and the Aztecs.

ANSWER: Hernán **Cortés**

(3) Commandeer of the *Victoria* who discovered a strait to the Pacific.

ANSWER: Ferdinand **Magellan**

(4) Dutch East India captain who landed in Maine and sailed south to New York.

ANSWER: Henry **Hudson**

(5) Italian who discovered New York Bay while sailing for the French and who names a bridge which crosses The Narrows.

ANSWER: Giovanni da **Verrazzano** (accept **Verrazzano**-Narrows Bridge)

(6) Polar explorer who saved the stranded crew of the *Endurance*.

ANSWER: Ernest **Shackleton**

(7)

ANSWER:

(8)

ANSWER:

Earthquakes

Referring to earthquakes, name the...

(1) Fracture in Earth's crust at which dip-slip or strike-slip movement causes earthquakes.

ANSWER: **Faults** (accept **Fault** zone(s), **Fault** line(s), **Fault** plane(s), and **Fault** trace(s))

(2) Point on Earth's surface directly above the focus of an earthquake.

ANSWER: **Epicenter** (do not accept "hypocenter")

(3) Device for recording earthquake waves, traditionally using a moveable pen on a revolving paper drum.

ANSWER: **Seismograph** (accept **Seismometer**)

(4) Logarithmic scale for measuring earthquake magnitude, devised by an American scientist in 1935.

ANSWER: **Richter** scale (do not accept "moment magnitude scale")

(5) Intensity scale that ranges from one to twelve based on the resulting damage.

ANSWER: Modified **Mercalli** intensity scale (accept **MM**; accept **MMI**)

(6) Fluid-like behavior of saturated soil during an earthquake, allowing buildings to collapse and sink.

ANSWER: Soil **liquefaction**

(7)

ANSWER:

(8)

ANSWER:

Second Half

(1) **This material's "fire" variety is caused by magnetite nanoparticles embedded in its surface. Hedenbergite [HEH-den-ber-gite]] nanorods [[NAN-oh-rods]] cause the "rainbow" form of this material found in parts of Mexico. Rich in light elements like silicon and aluminum, this brittle material is produced from felsic (*) lava. Stone Age cultures valued this material for its ability to be knapped into tools and weapons. For ten points, name this black volcanic glass.**

ANSWER: **Obsidian** (prompt on "volcanic glass" before mentioned)

(bonus) Though delayed by budget shortfalls, Japan's Chikyu Hakken project plans to drill to a depth of ten kilometers to penetrate this layer of the Earth. For ten points each,

* Name this thickest layer of the Earth, located between the crust and core.

ANSWER: **Mantle**

* Chikyu Hakken must mainly drill through this low silica igneous rock which makes up oceanic crust.

ANSWER: **Basalt** (accept Pillow **Basalt**)

* The project will be successful when it crosses this crust-mantle boundary named for a Croatian geologist.

ANSWER: **Moho** Discontinuity (accept **Mohorovicic** discontinuity)

(2) **Together with Motu Nui and Motu Iti, this island forms the summit of a volcanic mountain that is part of the mostly submarine Salas y [[EE]] Gómez ridge. Despite being thousands of kilometers away, this island is part of the Valparaiso region of (*) Chile. This island is best known for the creations of its indigenous Rapa Nui people, monolithic human-head structures called *moai*. For ten points, name this island in the Pacific named for a Christian holiday.**

ANSWER: **Easter** Island (accept **Rapa Nui** before mentioned; accept Isla de **Pascua**)

(bonus) Vasilyevsky [[vah-seel-YEV-skee]] Island lies across from this city's Winter Palace. For ten points each,

* Name this city, whose former names have included Petrograd and Leningrad.

ANSWER: **Saint Petersburg** (accept **Sankt-Peterburg**)

* This river flows through St. Petersburg and Kirovsk before emptying into a namesake bay in the Gulf of Finland.

ANSWER: **Neva** River

* Saint Petersburg contains one of these buildings dedicated to Saint Isaac. Another of these buildings in Moscow named for St. Basil is known for its onion domes.

ANSWER: **Cathedrals** (accept **Sobor**; prompt on "church")

(3) **This text was prefaced by the Halifax Resolves, a resolution first adopted by North Carolina. The Lee Resolution was officially announced and explained by this text, which was drafted by the Committee of (*) Five.** This text begins by holding that certain truths are "self-evident" and that "all men are created equal." For ten points, name this text which formalized the breaking away of the United States from Great Britain on July 4, 1776.

ANSWER: United States **Declaration of Independence**

(bonus) A confederacy led by this man included leaders called *weroance* and had a capital at Werowocomoco. For ten points each,

* Name this leader of a namesake Confederacy, whose daughter, Pocahontas, allegedly prevented him from executing John Smith.

ANSWER: **Powhatan** (accept **Wahunsenacawh**; accept **Wahunsenacah**; accept **Wahunsunacock**; accept **Wahunsonacock**)

* John Smith was a leader of this early English settlement in Virginia which was established in 1607.

ANSWER: **Jamestown**

* This bicameral institution founded in 1642 served as an early legislative body within colonial Virginia.

ANSWER: **House of Burgesses**

(4) A piece titled for this period of time opens with three eighth note G-sharps. A work by Frederick Delius is titled *On Hearing the First Cuckoo in* this period of time, which is also the nickname of Robert Schumann's first symphony. A "barking dog" motif appears in a violin concerto from *The Contest Between Harmony and Invention* named for this season. For ten points, name this season from Vivaldi's *The Four Seasons* which precedes "Summer."

ANSWER: **Spring** (accept *La Primavera*; accept **Spring** *Symphony*; accept *On Hearing the First Cuckoo in Spring*; accept **Spring** *Concerto*)

(bonus) Alice Goodman wrote the libretto for an opera with this man's name in the title which opens with Henry Kissinger landing in Peking. For ten points each,

* Who is the title character of this American opera who, in 1972, became the first U.S. president to visit the People's Republic of China?

ANSWER: Richard **Nixon**

* *Nixon in China* was composed by this minimalist creator of *Short Ride in a Fast Machine*, who shares a first and last name with a U.S. president.

ANSWER: John **Adams**

* John Adams also composed *On the Transmigration of Souls*, which was partly commissioned by the Lincoln Center to commemorate this event.

ANSWER: **9/11** Terrorist Attacks (accept **September 11**, 2001)

(5) **The discovery of this organelle earned a Nobel Prize for Romanian-born biologist George Emil Palade [[pah-LAH-deh]]. These organelles assemble within the Kozak sequence before initiating (*) translation.** These organelles are produced in the cytoplasm and the nucleolus and, in plants and animals, can be found on the surface of the rough endoplasmic reticulum. For ten points, name these organelles responsible for the synthesis of proteins.

ANSWER: **Ribosomes**

(bonus) Cells of this type in the liver are known as Kupffer cells. For ten points each,

* Name these white blood cells whose name comes from the Greek for "large eater." These cells engulf and digest foreign particles and pathogens.

ANSWER: **Macrophages** [[MAK-roh-fay-jehs]] (accept Stellate **Macrophage**)

* Antigens are presented on the surface of macrophages and these other immune cells, which mature in the bone marrow and secrete antibodies when they differentiate into plasma cells.

ANSWER: **B** Cells (accept **B** Lymphocytes)

* B cells can be activated by helper T cells, which are infected and killed by this virus first identified in African primates. This retrovirus causes the disease AIDS.

ANSWER: **HIV** (accept **H**uman **I**mmunodeficiency **V**irus)

(6) **From this figure's blood, the Amphisbaena [[am-fiss-BEE-nah]] spawned in the Libyan Desert. Upon this figure's death, Chrysaor [[kry-SAY-or]] and Pegasus sprang from the body. For defiling a temple, this figure was (*) deformed by Athena, who later took this monster's severed head from Perseus and placed it on her shield. Having hair made of a nest of snakes, for ten points, who is this Greek mythological monster, one of the three Gorgons.**

ANSWER: **Medusa** (accept **Gorgo** before "Gorgons")

(bonus) Among the titles given to this deity are "He Who is in the Place of Embalming." For ten points each,

* Name this Egyptian deity present during the weighing of the heart. He is often depicted with the head of a canine.

ANSWER: **Anubis** (accept **Inpu**; accept **Anpu**)

* Anubis's head is likely the African golden variety of this canine, from the same subtribe as wolves and dogs.

ANSWER: **Jackal**

* Scenes from the *Book of the Dead* depict this deity being led to the judgement hall by Anubis. The pieces of his body were saved by his wife, Isis.

ANSWER: **Osiris** (accept **Wsjr**)

(7) **A group led by Ysembart [[EE-sem-bart]] attacked a baggage train during this battle. Charles d'Albret [[dahl-BREH]] and John of Alençon [[ah-lehn-SOHN]] were killed in action as leaders of the losing side during this battle. Due to the (*) muddy terrain during this battle, the cavalry of one side were at a disadvantage to the other side's longbowmen. For ten points, name this battle fought on St Crispin's Day during the Hundred Years' War and won by Henry V over the French.**

ANSWER: Battle of **Agincourt** [[AH-zhin-corh]] (accept Battle of **Azincourt**; be lenient on pronunciation)

(bonus) This man carried out a campaign against liberals, atheists, and other perceived enemies of his regime in the White Terror. For ten points each,

* Name this military dictator who headed the Falange [[fah-LAHN]] Party in an Iberian country which he led for 36 years.

ANSWER: Generalissimo Francisco **Franco**

* Franco led this country, where he once headed the General Military Academy of Zaragoza.

ANSWER: Kingdom of **Spain** (accept Reino de **España**)

* Franco's chosen successor, Luis Carrero Blanco, was killed in an attack carried out by the ETA, a separatist group made up of members of this ethnic group of northern Spain and southern France.

ANSWER: **Basques** (accept **Vascos**; accept **Euskaldunak**)

(8) **In one work by this author, Gail Hightower resigns from the ministry after the discovery of a scandal. In that work by this author, Joanna Burden searches for her child's father in Jefferson. This author used a (*) non-linear structure to describe the life of Harvard freshman Quentin and his sister Caddie. The Compson family appears in several works by this Mississippi-born novelist. For ten points, name this author of *The Sound and the Fury*.**

ANSWER: William **Faulkner**

(bonus) The protagonist of this play tells a doctor "I have always depended on the kindness of strangers" before being taken to a mental hospital. For ten points each,

* Name this play set in New Orleans about the Southern belle Blanche DuBois [[doo-BWAH]], who moves in with her sister, Stella.

ANSWER: A ***Streetcar Named Desire***

* Stella is married to this character, who frequently plays poker with his friends and throws a radio out the window in one scene.

ANSWER: **Stanley** Kowalski (prompt on "Kowalski")

* *A Streetcar Named Desire* was written by this American playwright of *Cat on a Hot Tin Roof* and *The Glass Menagerie*.

ANSWER: Thomas "Tennessee" **Williams**

Extra Questions

(1) **The ghost town of Bombay Beach sits next to this state's Salton Sea. This state's oil industry is centered around the city of Bakersfield. This state's San Joaquin Valley is anchored by the city of (*) Fresno, and its cities of Riverside and San Bernardino make up the core of this state's Inland Empire region. For ten points, name this most populous U.S. state, whose largest cities include San Diego, Los Angeles, and San Francisco.**

ANSWER: **California**

(bonus) A Tesla coil generates the alternating form of this quantity, while a battery stores the direct kind. For ten points each,

* Name this quantity which is measured in amperes, the flow of charged particles such as electrons through a conductor.

ANSWER: Electric **Current**

* Current is the same everywhere in this type of circuit, whose total resistance is found by summing the values of each individual resistor.

ANSWER: **Series** Circuit (accept **Current-Coupled** Circuit; accept **Daisy Chain** Circuit)

* These devices, which include toroids and solenoids [[SOH-leh-noyds]], store potential energy in their magnetic fields when current flows through them.

ANSWER: **Inductor** (prompt on "Electromagnets")