

# Academic Bowl Round 7

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## First Half

(1) **This series of some 250 paintings began in 1896 with *The Japanese Bridge*, some time after the artist began suffering from cataracts. In 2014, one piece from this series, *Nymphéas*, sold for \$54 million at auction. (\*)** Depicting the artist's flower garden in Giverny [[zhee-vehr-NEE]], for ten points, what is this notable series of paintings by Claude Monet?

ANSWER: **Water Lillies** (accept **Nymphéas** before mentioned)

(bonus) A wealthy citizen from this nation is depicted in the *The Laughing Cavalier* by Frans Hal. For ten points each,

\* *The Laughing Cavalier* is part of a militia company, similar to another corps of soldiers from this nation as depicted in Rembrandt's *The Nightwatch*.

ANSWER: Kingdom of the **Netherlands** (or Koninkrijk der **Nederlanden**; accept the **Dutch**; accept **Holland**)

\* This other Dutch Golden Age artist depicted a woman at work in *The Milkmaid*. He also painted *Girl with a Pearl Earring*.

ANSWER: Johannes "Jan" **Vermeer**

\* Pieter de Hooch painted a *Courtyard of a House in* [this city]. Vermeer later painted *View of* this Dutch city.

ANSWER: **Delft**

(2) **In 2003, the former president of this country appointed his son, Ilham Aliyev, as president of this country. In November of 2020, this country was victorious in a border conflict regarding the autonomy and control over the Nagorno-Karabakh (\*) Autonomous Region against Armenia. For ten points, name this oil-rich Caucasian nation governed from Baku.**

ANSWER: Republic of **Azerbaijan** (or **Azarbaycan** Respublikasi)

(bonus) This European power used the *gelding*, a castrated horse, in battle as to not give the enemy more horses to breed theirs with. For ten points each,

\* Name this order of Warrior monks led by a *Hochmeister*. They conquered and Christianized much of the Baltic states and Poland during Late Medieval period.

ANSWER: **Teutonic** Order (Accept **Teutonic** Knights)

\* The Teutonic Order's collapse began after the Polish won a crushing victory over them at this 1410 battle.

ANSWER: Battle of **Grunwald** (accept The Battle of **Tannenberg**)

\* The Treaty of Pressburg between this French Emperor and Holy Roman Emperor Francis II formally dissolved the Teutonic Order.

ANSWER: **Napoleon Bonaparte**

(3) **This element can be enriched using a device called a Zippe-type centrifuge. This element, which has the highest atomic weight of all naturally occurring elements, was first extracted from pitchblende. Yellowcake (\*) is a compound containing oxides of this element, whose isotope 235 is used in the creation of nuclear energy. For ten points, name this radioactive element with the atomic symbol U.**

ANSWER: **Uranium** (or **U** before mentioned; accept **Uranium**-235 or **U**-235; accept Yellowcake **Uranium**)

(bonus) 1,2,3-trinitroxypropane is a less common name for this liquid. For ten points each,

\* Name this liquid often found in explosives like dynamite.

ANSWER: **Nitroglycerin** (accept Tri**nitroglycerin**; accept **Glyceryl Trinitrate**; prompt on "Nitro")

\* Nitroglycerin's commercial use was pioneered by this Swedish chemist who bequeathed his fortune to establish a set of five awards.

ANSWER: Alfred **Nobel** (or Alfred Bernhard **Nobel**)

\* When produced industrially, nitroglycerin combines glycerol with nitric acid and this acid with formula H<sub>2</sub>SO<sub>4</sub>.

ANSWER: **Sulphuric** acid

(4) **In this 1951 work, the wearied protagonist compares his struggle to Joe DiMaggio [[dee-MAH-zhee-oh]] playing baseball with bone spurs. In this work, a boy named Manolin [[MAH-no-leen]] (\*) remains loyal to the protagonist, his mentor, despite the rest of the village's scorn. For ten points, name this Pulitzer Prize-winning novella by Ernest Hemingway in which the fisherman Santiago fights with and catches a giant marlin.**

ANSWER: *The **Old Man and the Sea***

(bonus) Beth Harmon learns how to play chess while growing up in an orphanage in this novel. For ten points each,

\* Name this novel about a young girl's journey to become the world's greatest chess player which was adapted into a Netflix miniseries in 2020.

ANSWER: *The Queen's Gambit*

\* In the *The Queen's Gambit*, Beth faces off against Vasily Borgov in this capital of the Soviet Union.

ANSWER: Moscow

\* This writer's poem "The Long-Legged Fly" appears in the novel's epigraph. He also wrote "Easter, 1916."

ANSWER: William Butler Yeats

(5) **The morning and evening of this day is spent doing the practice of *vidui*, during which an *ashamnu* or an *al chayt* may be chanted. On the day preceding this day, a *kapparot* ritual is performed in which a chicken is waved over one's head, (\*) followed by an extended *mincha* period of confession. The High Holy Days ends with this day, which occurs nine days after the first day of Rosh Hashanah. For ten points, name this holiest day in Judaism, also known as the Day of Atonement.**

ANSWER: Yom Kippur (accept Day of Atonement before mentioned)

(bonus) This man claimed that the arts and sciences are harmful to human morality in a work commonly called *The First Discourse*. For ten points each:

\* Name this Romantic thinker who once said that "Man is born free; and everywhere he is in chains."

ANSWER: Jean-Jacques Rousseau

\* Rousseau's aforementioned quote appears in this work in which he envisions a world where rights are relinquished and duties are taken on for the benefit of all.

ANSWER: *The Social Contract* (or *On the Social Contract* or, *Principles of Political Right*; accept *Du contrat social*; ou *Principes du droit politique*)

\* This work, which Rousseau deemed to be his most important, contains advice on parenting and educating an ideal citizen.

ANSWER: Emile, or *On Education* (accept Émile, ou *De l'éducation*)

(6) **This man wrote a satirical commentary on the 18th century upper class of Great Britain called *Polite Conversation*, and this man used the pseudonym "Isaac Bickerstaff" during an elaborate April Fool's joke. This man claims the papist problem in the United Kingdom would be solved if the (\*) Irish poor gave up their babies as a food source. For ten points, name this writer of *A Modest Proposal* and *Gulliver's Travels*.**

ANSWER: Jonathan **Swift**

(bonus) In one work by this author, the title character abandons his classical studies and marries Arabella Donn, who leaves him and heads to Australia. For ten points each,

\* Name this author of *Jude the Obscure* and *Tess of the D'Urbervilles*.

ANSWER: Thomas **Hardy**

\* Michael Henchard sells his wife and children at Weydon Fair at the start of a Hardy novel titled for one of these people "of Casterbridge." Boris Johnson held this title "of London" from 2008 to 2016 and was succeeded by Sadiq Khan.

ANSWER: **Mayor** (accept *The Mayor of Casterbridge*; accept **Mayor** of London)

\* William Boldwood and Sergeant Troy vie for the attention of Bathsheba Everdeen in the Thomas Hardy novel *Far from the Madding* [what word]?

ANSWER: **Crowd** (accept *Far from the Madding Crowd*)

(7) **The ability of a compound to cause this process is judged by the Ames test. Luria and Delbrück found that the rate of this process is independent of selection pressure. All new alleles [[ah-LEELS]] are generated through this process, which is called (\*) "nonsense" if it introduces a stop codon. The "point" form of this process often substitutes a single nucleotide. For ten points, name this process that alters the DNA sequence of an organism.**

ANSWER: **Mutation**s (accept **Mutagenesis**; accept Causing **mutation**s; accept Point **mutations**)

(bonus) This technique makes use of a guide RNA to insert a certain nuclease into a target cell. For ten points each,

\* Name this novel gene editing technique in which genes can be removed or added via cuts carried out by the cas9 [[KASS-NINE]] protein.

ANSWER: **CRISPR** gene editing (or **Clustered regularly interspaced short palindromic repeats**; accept **CRISPR**-cas9 gene editing)

\* Jennifer Doudna received the Nobel Prize in Chemistry for helping develop CRISPR gene editing while working at this public U.S. West coast university.

ANSWER: University of California **Berkeley** (accept UC **Berkeley**; prompt on "University of California", "Cal," or "California")

\* CRISPR sequences are found in prokaryotes, like this domain that was originally classified as bacteria before splitting off.

ANSWER: **Archaea** (accept **Archaeon**)

(8) **One king of this dynasty abolished the Hall of Worthies following the execution of the Six Martyred Ministers. Power and wealth in this dynasty were held by the hereditary *Yangban* [[YONG-bahn]] class. One ruler of this dynasty commissioned his country's (\*) *Hangul* [[HAHNG-OOL]] alphabet. This dynasty fell from power following annexation by Imperial Japan in 1910. For ten points, name this last ruling dynasty of Korea.**

ANSWER: **Joseon** (or **Chosŏn**; prompt on "Korea" before mentioned)

(bonus) The *Hindenburg* disaster was not the deadliest Zeppelin accident in world history. For ten points each,

\* The deadliest Zeppelin crash occurred when this craft, the world's first flying aircraft carrier, crashed in 1933. Its sister ship, the USS *Macon* crashed two years later.

ANSWER: USS **Akron** (or **ZRS-4**)

\* This explorer died while attempting a rescue operation of airship *Italia*. This man and his party were the first to reach the true South Pole.

ANSWER: Roald **Amundsen** (or Roald Engelbregt Gravning **Amundsen**)

\* Many crashes of dirigibles, like that of the *Wingfoot Air Express* in 1912, were airships owned by this tire and rubber company, named for the inventor of vulcanized rubber.

ANSWER: **Goodyear** Tire and Rubber Company (accept Charles **Goodyear**)

## Halftime

The categories are:

1. War Literature
2. The Phoenicians
3. Projectile Motion

**War Literature**

War has offered inspiration for many tales of fiction and non-fiction. Name the...

(1) Classical language used by Silius Italicus to recount a war in the poem *Punica* [[PYOO-nih-kah]].

ANSWER: Classical **Latin**

(2) War in which the novels *Johnny Tremain* and *Redcoat* are set.

ANSWER: **American Revolution** (accept **Revolutionary** War; accept **American** War of **Independence**; prompt on "American")

(3) War that serves as the setting of Hemingway's *For Whom the Bell Tolls*.

ANSWER: **Spanish Civil** War (or Guerra **Civil Española**)

(4) World War Two satire by Joseph Heller centered on John Yossarian.

ANSWER: **Catch-22**

(5) Novel about Paul Bäumer during World War One by Erich Maria Remarque.

ANSWER: **All Quiet on the Western Front** (or **Im Westen nichts Neues**)

(6) War in which Tim O'Brien's semi-autobiographical *The Things They Carried* is set.

ANSWER: **Vietnam** War (or War in **Vietnam**; or **Second Indochina** War; or **Vietnam** Conflict)

*The Phoenicians*

Regarding the ancient Phoenicians, name the...

(1) City they founded in North Africa which fought Rome in the Punic Wars.

ANSWER: **Carthage**

(2) City which lends its name to a purple dye developed from sea snails.

ANSWER: **Tyre** (accept **Sur**)

(3) Native tree, today depicted on the flag of Lebanon.

ANSWER: Lebanese **Cedar** (or **Cedar** of Lebanon)

(4) Island group, including Mallorca, occupied by Rome after the Second Punic War.

ANSWER: **Balearic** Islands (or **Balearics**)

(5) Son of Noah for whom their language family is named.

ANSWER: **Shem** (prompt on "Semitic")

(6) Mythical founder and king of Thebes who brought their alphabet to Greece.

ANSWER: **Cadmus**

**Projectile Motion**

While conducting a siege, you decide to lob a cannonball at your enemy's walls. Name the...

(1) Force that pulls the ball toward the earth once it leaves the cannon.

ANSWER: **Gravity** (accept **Gravitation**)

(2) Curve described by a quadratic equation which names the ball's trajectory.

ANSWER: **Parabola** (accept **Parabolic**)

(3) Number of degrees with the horizontal at which the ball should be fired to achieve its maximum range.

ANSWER: **45** degrees

(4) X and Y components that have both magnitude and direction into which you may want to resolve the ball's motion.

ANSWER: **Vectors**

(5) "Fictitious force" for which you must account when determining the ball's deflection over long distances.

ANSWER: **Coriolis** force (accept **Coriolis** effect)

(6) Set of equations that describe the motion of an object with constant acceleration which can be used to model the flight of the ball.

ANSWER: **Kinematic** equations (accept **Ballistic** equations)



## Second Half

(1) **This artist depicted two people kissing while their heads are covered in cloth in a work titled *The Lovers*. In another work, this artist includes a brown pipe with the caption, "This is not a pipe."** (\*) Perhaps the most famous work by this artist depicts a man wearing a bowler hat and a suit with a green apple placed in front of his face. For ten points, identify this Belgian Surrealist who painted *The Treachery of Images* and *The Son of Man*.

ANSWER: René Magritte (or René François Ghislain Magritte)

(bonus) A woman drinks tea and fans herself while her spouse checks his books in this artist's *A merchant making up the account*. For ten points each,

\* Name this *ukiyo-e* [[oo-KEE-yoh EH]] artist who depicted various *kami* in his series *One Hundred Ghost Tales*.

ANSWER: Hokusai Katsushika (prompt on "Katshushika")

\* Hokusai depicted a "Great Wave" in his series *Thirty-Six Views of* [this Japanese mountain].

ANSWER: Mt. Fuji (or Fugaku; accept *Thirty-six Views of Mount Fuji*)

\* Hokusai depicted *Fireworks in the Cool of Evening of* [this Imperial capital of Japan], later renamed to Tokyo.

ANSWER: Edo

(2) **This man, who gives his name to Boston's tallest building, owned the sloop HMS *Liberty*, gaining popularity when the British captured it. This man, who served as president of the Second Continental (\*) Congress, was followed by Samuel Adams as governor of Massachusetts. For ten points, name this founding father known for his large signature on the Declaration of Independence.**

ANSWER: John Hancock

(bonus) Benjamin Russell coined the name for this period which involved the rise of the Old Republicans and the demise of the Federalists. For ten points each,

\* Name this "era" of unity and prosperity following the War of 1812.

ANSWER: Era of Good Feelings

\* The Era of Good Feelings is associated with this fifth president, who succeeded James Madison.

ANSWER: James Monroe

\* An event of this type in 1819 helped bring about the end of the Era of Good Feelings, partly caused by several institutions failing to provide specie payments.

ANSWER: **Panic** (accept **Panic** of 1819)

(3) **Molecules with this geometry have "3N minus 5" vibrational modes. This type of molecular geometry is exemplified by the molecule xenon difluoride, as well as anions [[AN-"eye"-ons]] such as triiodide [[try-"EYE"-oh-"died"]], or I(-3) ["EYE"-MINUS-THREE]]. Molecules with this geometry have a bond angle of (\*) 180 degrees. Carbon dioxide exemplifies, for ten points, what type of molecular geometry in which atoms lie in a straight line?**

ANSWER: **Linear** (accept descriptive answers like "Straight **Line**" before mentioned)

(bonus) Answer the following about infinite sums. For ten points each:

\* A sum across many values of a sequence is represented by this capital Greek letter, with the number of values to be summed appearing above this letter.

ANSWER: **Sigma**

\* If an infinite sum does not add up to a finite number, it is said to have this property. A series with this property does not converge to a finite limit.

ANSWER: **Divergent** series (accept **Divergence**)

\* The sum of this series of the reciprocals of natural numbers is divergent.

ANSWER: **Harmonic** series Edited by Noah Sheidlower

(4) **This play inspired the title of W. Somerset Maugham's novel *Cakes and Ale*. In this play, the servants Maria and Fabian deceive Malvolio with the help of Sir Toby Belch. The main character of this play takes the name Cesario under the employ of Duke (\*) Orsino and while searching for her twin brother, Sebastian. For ten points, identify this Shakespeare comedy which opens with the line "If music be the food of love, play on."**

ANSWER: **Twelfth Night** (accept **What You Will**)

(bonus) One work by this author was accepted by Bloomsbury for publication after an eight-year old named Alice Newton quickly asked for the second chapter after reading the first. For ten points each,

\* Give the surname under which that author who created Harry Potter was born.

ANSWER: **Rowling** (accept J. K. **Rowling**; accept Joanne **Rowling**)

\* Rowling followed the *Harry Potter* series with this 2012 novel about a tumultuous parish election in an English country town. The title is taken from a political term in which an unplanned vacancy of a position in an assembly is left unfilled.

ANSWER: The *Casual Vacancy*

\* Since 2013, Rowling has published the *Cormoran Strike* series of crime novels under a pseudonym with the last name Galbraith and this first name, which is shared with the author of *Treasure Island*.

ANSWER: Robert

(5) **This geographical distinction is held by Palawan Island for continental Asia and Gavdos Island in Greece for Europe. Ushuaia, the capital of Tierra del Fuego, is home to the international airport with this distinction, and Wellington, New Zealand (\*) holds this distinction among world capitals. For ten points, name this geographical distinction which Florida also has for the contiguous United States at Key West.**

ANSWER: Southernmost (accept synonymous answers)

(bonus) Glaciers have the potential to influence both wars and scientific research. For ten points each,

\* Name this glacier on a de facto border between India and Pakistan, the highest place on earth on which war has been waged.

ANSWER: Siachen Glacier

\* When glaciers erode into a body of water, they can form these inlets, most commonly found in Norway and Greenland

ANSWER: Fjords

\* This is the only planet other than Earth in the solar system known to contain glaciers.

ANSWER: Mars

(6) **This god's female aspect is the legendary origin of writing in the Mediterranean world, and that god lends her name to the Old Italic script used by the Etruscans. After a fit of depression, this deity's daughter, Hathor, danced (\*) nude in front of him to make him laugh. This deity piloted the "Boat of a Million Years" which provided light to the world for twelve hours of the day. For ten points, name this solar deity of Egypt who is frequently combined with Amun.**

ANSWER: Ra (or Re; accept Ra-Horakhty; accept Amun Ra)

(bonus) Certain mystery cults gained popularity during the Roman Empire. For ten points each,

\* A mystery cult named for this wife of Osiris first gained prominence in the Greco-Roman world after the rise of the Ptolemies.

ANSWER: **Isis**

\* This faith called its own sacraments, such as "Confirmation," *mysterion*, meaning "Mystery Rites" in Greek, taking on aspects of other cults of the Roman world.

ANSWER: **Christianity** (or **Christians**; accept Roman **Catholicism**)

\* This Arab-Roman sun god may have gained part of its name from a Phoenician deity. A Severan emperor with a similar name to this god replaced Jupiter with this god as head of the Roman pantheon.

ANSWER: **Elagabal** (accept **Elagabalus**; accept **Sol Invictus**)

(7) **During a 1901 experiment on this disease, nurse Clara Maass [[MAHSS]] died after being voluntarily bitten. Dark vomit and jaundice are symptoms of this disease which killed thousands of people in Buenos Aires in 1871 and Philadelphia in 1793. A theory developed by Cuban doctor Carlos Juan Finlay helped (\*)** Walter Reed prove the means by which this disease is transmitted. Spread by mosquitoes, for ten points, what is this tropical disease with a "colorful" name?

ANSWER: **Yellow fever** (or **Yellow jack**; or **Yellow plague**; or **Bronze john**)

(bonus) In 2019, researchers found that one variety of this protein binds with a higher affinity to ACE2 than another. For ten points each:

\* Name this protein often named for the large peplomers on its outer surface.

ANSWER: Coronavirus **Spike** Protein (accept **E2**; accept but DO NOT REVEAL SARS-CoV **S** Protein)

\* Spike protein was studied in response to the coronavirus pandemic, which is believed to have begun in this Chinese city, the most populous in Central China.

ANSWER: **Wuhan**

\* Commonly known by a three-letter initialism, this public health agency based in Atlanta has been actively providing guidelines to Americans affected by the coronavirus.

ANSWER: **CDC** (accept **Centers for Disease Control and Prevention**)

(8) **This vessel became a movie star when the Navy allowed it to be used as a filming location for the 1934 James Cagney film *Here Comes the Navy*. This Pennsylvania-class dreadnought was commissioned in 1916 and named in honor of the (\*) 48th state's recent entry into the union. For ten points, name this American battleship that was sunk during the attack on Pearl Harbor and now acts as a memorial to the lives lost that day.**

ANSWER: USS Arizona

(bonus) Much of the best of Major League Baseball quit playing in the league to serve their country in the Second World War. For ten points each,

\* Name the Japanese capital in which catcher Moe Berg shot vital footage in preparation for the "Doolittle Raid."

ANSWER: Tokyo

\* Joe Pinder, a minor leaguer, earned the Medal of Honor for his sacrifice at this "Beach" which, with Utah, was the responsibility of the U.S. military on D-Day.

ANSWER: Omaha Beach

\* This Hall of Fame Yankees catcher, who popularized the phrase "It Ain't Over 'til it's Over," served as a gunner during the Normandy landings on D-Day.

ANSWER: Yogi Berra (or Lawrence Peter Berra)

**Extra Question**

(1) **One of these creatures was originally a dwarf cursed by Andvari's ring. After killing that example of these creatures, Sigurd learns the language of birds by tasting the creature's blood. In addition to Fafnir, (\*)** another example of these creatures was killed to save a princess by St. George. For ten points, name these monsters which are usually depicted as large, fire-breathing reptiles.

ANSWER: **Dragons** (accept **Wyrm**; accept **Serpent** before "George," prompt after)

(bonus) Reid Hoffman founded this social network geared at helping workers connect and find jobs. For ten points each:

\* Name this largest professional social network.

ANSWER: **LinkedIn**

\* **LinkedIn** was acquired for \$26.2 billion by this company founded by Bill Gates.

ANSWER: **Microsoft** Corporation

\* Another major Microsoft acquisition was the company's purchase of this video chat company started by Estonian programmers.

ANSWER: **Skype**