# 2020 US Academic Bowl National Championships Round 5 

## First Half

(Tossup 1) In the prelude to this event, the one side was tricked into over-defending Pas de Calais due to Operation Fortitude. Large logs called "Rommel's Asparagus" were placed to counter Allied gliders during this event. (*) As part of this event, Allied troops landed at beaches labeled Sword and Juno. For ten points, name this 1944 operation in which Allied forces invaded mainland Europe.

Answer: D-Day (accept the Allied invasion of Normandy; accept Operation Overlord; accept Operation Neptune; prompt on invasion of France; prompt on invasion of Europe)
(Bonus 1) This family's frequent inbreeding resulted in many of its members having a distinctive jawline. For ten points each,

Part 1: Name this royal family which ruled Austria for almost 700 years. Philip II, a member of this family, presided over the Spanish Golden Age.
Answer: House of Hapsburg

Part 2: The Hapsburg family controlled this empire that ruled over much of central Europe until it was dissolved in 1806. The Thirty Years' War began as a series of conflicts within this empire. Answer: Holy Roman Empire (accept HRE)

Part 3: This female member of the Habsburg family led Austria during the Seven Years' War. Despite her father's creation of the Pragmatic Sanction ensuring her succession, Frederick the Great invaded Silesia after this woman ascended to the throne.
Answer: Maria Theresa
(Tossup 2 )This novel's protagonist is orphaned when a zoo rhinoceros kills his parents, leaving him in the care of Sponge and Spiker. In this novel, cloud demons attack after a flock of seagulls lift the (*) title object with help from Silkworm and Miss Spider. For ten points, name this Roald Dahl novel about a boy who escapes his abusive family with his large insect friends after growing a large piece of fruit with magic beans.

## Answer: James and the Giant Peach

(Bonus 2) In this book's final paragraph, its author muses on struggling to express her "better half" and wonders how she would be "if only there were no other people in the world." For ten points each,

Part 1: Name this book, many of whose characters, such as the van Daan family, died within a year of its abrupt ending.

## Answer: The Diary of Anne Frank (accept The Diary of a Young Girl)

Part 2: The Diary of Anne Frank provides an account of life in hiding in an annex in Amsterdam during this war.
Answer: World War Two (accept the Second World War)

Part 3: Anne states "I want the diary to be my friend, and I'm going to call this friend" this name. The entries in the diary are addressed to "dearest" this name.
Answer: Kitty
(Tossup 3) Numbers named for this field can be expressed as roots of polynomials with rational coefficients, and are contrasted with transcendental numbers. The "linear" form of this field concerns vectors and matrices. (*) The fundamental theorem of this field states that a degree n polynomial has n complex roots. For 10 points, name this mathematical field used to find solutions to systems of equations and may use variables like $x$.

## ANSWER: algebra

(Bonus 3) This was one of the three problems of antiquity. For 10 points each:
Part 1: Name this problem that, along with doubling the cube and trisecting the angle, were impossible by classical methods.
ANSWER: squaring the circle

Part 2: Geometers tried to square the circle using a straightedge and one of these devices, which consists of two legs connected by a hinge.
ANSWER: compass [or pair of compasses]

Part 3: This mathematician came up with criteria to determine whether a polygon could be constructed with a compass and straightedge. He may be more famous for quickly summing the integers from 1 to 100.
ANSWER: Carl Friedrich Gauss
(Tossup 4) This country's easternmost point is located in the Ertholmene archipelago. This country controls the island of Bornholm, which lies on a strategic point in the Baltic Sea. This country possesses a southern border with the (*) German region of SchleswigHolstein. This country's capital is mostly on the island of Zealand. For ten points, name this European country situated mainly on the Jutland peninsula, whose capital is Copenhagen.

## Answer: Denmark

(Bonus 4) The first schooner built to transport cheese from this state's town of Tillamook now serves as a logo for a namesake cheese company found nationwide. For ten points each:

Part 1: Name this Pacific Northwestern state, the site of Crater Lake, that includes the cities of Eugene and Portland.
ANSWER: Oregon
Part 2: The Willamette River, a tributary of this larger river, runs through downtown Portland. This river that bisects Washington state is home to massive salmon migrations by species like Chinook and Steelhead.

## ANSWER: Columbia River

Part 3: One follows the Timberline Trail to climb up this mountain in the Oregonian portion of the Cascades. This mountain, named for a British viscount, is said to be in conflict with the nearby Mount Adams in native legends.

## ANSWER: Mount Hood

(Tossup 5) The Chelicerata is considered by most scientists to be a sister taxon to this class. Recent genetic analysis suggests that horseshoe crabs belong in this class instead of the now defunct class Xiphosura. Members of this class have bodies divided into the abdomen and the (*) cephalothorax. Ticks and mites are members of this class that frequently exhibit parasitism. The most common order in this class of organisms produce silk to craft webs with. For ten points, name this class of arthropods, which includes scorpions and spiders.

## Answer: arachnids

(Bonus 5) Failure of proper chromosome distribution may lead to complications. For ten points each:

Part 1: Name this chromosome, which determines human sex along with the Y-chromosome. Males with two of them are inflicted by the Klinefelter syndrome.
Answer: X chromosome

Part 2: This process involves the generation of four haploid cells from a diploid cell.
Nondisjunction may occur during this process.
Answer: meiosis

Part 3: Trisomy of Chromosome 21 leads to this disease. Nondisjunction causing this disease often occurs during Meiosis I.
Answer: down syndrome (prompt on Trisomy 21)
(Tossup 6) In this modern-day country, the playing of the song "I'm Dreaming of a White Christmas" signaled the start of Operation Frequent Wind. US troops attempted to reduce communist influence in this country in the Strategic Hamlet Program. (*) Operation Rolling Thunder was an unpopular campaign aimed at this country. For 10 points, name this country where John McCain was imprisoned in the Hanoi Hilton.

Answer: Vietnam
(Bonus 6) Part of this program, the Agricultural Adjustment Act, was overturned in US v. Butler, although the act was later amended and passed in 1938. For ten points:

Part 1: Name this sweeping reform program promoted by FDR in the 1930s. This reform program created jobs through the Works Progress Administration and the Civilian Conservation Corps to counter the effects of a recent economic downturn.
Answer: New Deal

Part 2: That recent economic downturn was this recession, sparked by the Black Tuesday crash of October 24, 1929.
Answer: Great Depression

Part 3: During the Great Depression, homeless people began to build these shanty towns, mockingly named after the president at the time of the crash. Though they were essentially slums, these places went so far as to have elected mayors.
Answer: Hoovervilles
(Tossup 7) This god's cries were hidden by the sounds of the kouretes while he was raised by the goat Amalthea. Fearing that he would teach resurrection, this god killed the healer Asclepius. This god used an (*) eagle form to abduct Ganymede, forcing him to become his cupbearer. This god fed a certain figure the Omphalos Stone, causing him to throw up this god's siblings. This son of Rhea overthrew Cronus and got the sky when drawing lots with his brothers. For ten points, name this Greek god of thunder.
ANSWER: Zeus
(Bonus 8) This god owns Hringhorni, the "greatest of all ships". For ten points each, Part 1: Name this ill-fated Norse god, a brother of Thor and son of Odin. This god is one of the few to die before Ragnarok.
ANSWER: Baldr
Part 2: Baldr was felled by this plant, which was ignored by Frigg because of its weakness. In Christian culture, this plant is used as a decoration under which lovers are expected to kiss. ANSWER: mistletoe

Part 3: The mistletoe that killed Baldr was inadvertently thrown by this blind brother of his. This god was slain by Vali in retribution.
ANSWER: Hodr (accept Hod)
(Tossup 8) The poisonous compound phosgene is industrially produced by reacting chlorine with this gas. Water gas mostly contains hydrogen and this compound because it is produced from syngas. Along with water, this gas is produced in incomplete combustion, while (*) CO 2 is produced from complete combustion. Hemoglobin has a much higher affinity for this gas compared to oxygen, which makes it toxic. For 10 points, name this diatomic molecule with formula CO .
Answer: carbon monoxide [accept CO before mention]
(Bonus 8) A dielectric is a type of these materials placed between the plates of a capacitor, for ten points each.
Part 1: Name these materials such as rubber and glass that do not transmit current, which are contrasted with conductors.
ANSWER: insulators

Part 2: Insulators can't transmit current because these negatively-charged particles are unable to move through them.
ANSWER: electrons

Part 3: Insulators have large values for the "gap" between the "valence" and "conduction" types of these structures, which are the ranges of energy that electrons can occupy in a solid. ANSWER: bands (accept band gap; accept conduction band; accept valence band)

## Category Rounds

The categories are...

1. Proteins
2. Romeo and Juliet
3. The Sun Never Sets on the British Empire

## Proteins

Name the protein that:

Part 1: Is disrupted in diabetes and produced in the pancreas.
Answer: insulin

Part 2: Transports oxygen in red blood cells.
Answer: hemoglobin

Part 3: Has DNA and RNA forms, and whose Taq variety is used in PCR.
Answer: polymerase [accept DNA polymerase or RNA polymerase or Taq polymerase]
Part 4: Has a triple helix and is abundant in connective tissue.
Answer: collagen

Part 5: Fixes carbon dioxide in plants and may be the most abundant protein in the world.
Answer: RuBisCo [or ribulose-1,5-bisphosphate carboxylase/oxygenase]

Part 6: Is present in blood plasma and regulates blood oncotic pressure.
Answer: albumin

## Romeo and Juliet

Identify the following people from Romeo and Juliet, a play about a pair of "star-cross'd lovers" from "two houses, both alike in dignity."

Part 1: Romeo and Juliet live in this "fair" Italian city, where most of the play is set.
Answer: Verona
Part 2: Romeo is from this noble house, which is at war with Juliet's house of Capulet. Answer: Montagues

Part 3: Romeo kills this "prince of cats," Juliet's cousin, in a duel.
Answer: Tybalt
Part 4: Romeo duels Juliet's cousin over the death of this man, Romeo's close friend.
Answer: Mercutio
Part 5: This ally of the Capulet family loudly reminisces about tending Juliet as a baby. Answer: Juliet's Nurse

Part 6: This man helps pass letters between Romeo and Juliet and helps Juliet fake her death. Answer: Friar Laurence (prompt on "friar")

## The Sun Never Sets on the British Empire

Which British colony or former British colony...
Part 1: Gained independence with the help of the nonviolent protests of Mahatma Gandhi? Answer: India

Part 2: Had its capital at Port Royal, now in Kingston Harbor?
Answer: Jamaica

Part 3: Allied with the Iroquois Confederacy against New France in the French and Indian War? Answer: British America

Part 4: Became a Special Administrative Region of the People's Republic of China after its 99year lease expired in 1997?
Answer: Hong Kong
Part 5: Contains the Kikuyu people, who launched the failed Mau-Mau Uprising in the 1950s? Answer: Kenya

Part 6: Joined Malaysia, North Borneo, and Sarawak in the Federation of Malaysia?
Answer: Singapore

## Second Half

(Tossup 9) Near the end of a novel by this author, the athlete Belmonte comes out of retirement, and the main character goes to Bayonne and San Sebastian before a telegram recalls him to Madrid. This author recounted meeting Gertrude Stein during the (*) 1920s in Paris in his memoir A Moveable Feast. This man popularized the phrase "Lost Generation" in his novel about the World War One veteran Jake Barnes. For ten points, who wrote The Sun Also Rises?

## Answer: Ernest Hemingway

(Bonus 9) In this novel, Estella's father is sent to Australia and she is sent to live with a woman who keeps her clocks stopped at twenty minutes to nine. For ten points each,

Part 1: Name this novel, in which the ex-convict Abel Magwitch becomes the patron of the young orphan Pip Pirrip, helping him improve his station in life and marry Estella.
Answer: Great Expectations

Part 2: Great Expectations is by this English author, who contrasted the lives of poor and wealthy people in novels like David Copperfield.
Answer: Charles Dickens (accept Charles John Huffam Dickens)

Part 3: In Great Expectations, Estella is raised by this woman, who wears a tattered wedding dress and keeps her clocks stopped at the time she found out she had been jilted by her financeé.
Answer: Miss Havisham
(Tossup 10) One of these animal's named Bau Zhuzhen transfigured into a beautiful princess after summiting Mount Emei. Kashyapa and Kadru are the parents of a halfdivine race of humanoids mixed with this animal known as the Naga. Australian
Aboriginals worship a (*) Rainbow one of these creatures as their creator and fertility deity. For ten points, name these animals that included a wicked being that tempts Eve in the Garden of Eden.
ANSWER: Snake [Accept Serpents]
(Bonus 10) Mencius was a key follower of this thinker. For ten points each,

Part 1: Name this philosopher who lived during the Spring and Autumn period. He described the personal positive effects of altruism as ren.
Answer: Confucius (or Kong Fuzi)
Part 2: Confucius was born in what is now this country, where a significant portion of its billionplus population follow his teachings.
Answer: People's Republic of China

Part 3: Confucianism places a high level of importance on this virtue, which encompasses respect for one's elders and ancestors.
Answer: filial piety (or xiao)
(Tossup 11) A creole of this type spontaneously developed in 1980s Nicaragua in the chaos of the Sandinista Revolution. An extinct type of this language developed on Martha's Vineyard due to a recessive trait that made a disability common. (*) This type of language has been taught to apes in captivity like Koko and Nim Chimpsky. For ten points, name this type of language often used by the deaf that uses visual stimuli to convey meaning. ANSWER: Sign Languages
(Bonus 11) The so-called "Wolverine Watchmen" faced charges of plotting to kidnap this political figure due to COVID-19 restrictions in one state. For ten points each:
Part 1: Name this Michigan Governor who the state Republicans attempted to impeach in December 2020.
ANSWER: Gretchen Whitmer

Part 2: Gretchen Whitmer will be a co-chair for the Inauguration of President-elect Joe Biden and of this other politician, the current Vice-President elect.
ANSWER: Kamala Harris

Part 3: Stacey Abrams has been giving credit of adding up to 800,000 new voter registrations in this home state of hers.
ANSWER: Georgia
(Tossup 12) This movement included the August Movement, which called for a certain country to begin an "orderly withdrawal." Early leaders of this movement included Lal, Bal, and Pal. One leader of this movement led a (*) salt march as part of his nonviolent protest movement. For ten points, name this movement that sought the end of British rule in a certain south Asian region, whose leaders included Mahatma Gandhi.

Answer: Indian Independence Movement (accept logical equivalents)
(Bonus 12): After some fighting between this man's sons Jochi and Chagatai, he appointed Ogedai to succeed him. For ten points each:

Part 1: Name this first Great Khan and founder of the Mongol Empire.
Answer: Genghis Khan (or Temujin. Accept [ching-gis] or [geng-gis] for "Genghis")
Part 2: This grandson of Genghis Khan founded the Yuan Dynasty after defeating the Song Dynasty.
Answer: Kublai Khan (accept Emperor Shizu)
Part 3: Kublai Khan's invasions of Japan were thwarted by these "divine winds." The name for the winds would later name Japanese aerial suicide attacks.
Answer: Kamikaze
(Tossup 13) In the early 1700s, this art form began to split into seria and buffa, or serious and comic types. The lyrics for these works are written in a libretto. In a fifteen-hour-long example of this type of composition, (*) Brunnhilde rides onto a funeral pyre after singing an $\left(^{*}\right)$ aria. Richard Wagner's [REE-kart VOG-ner's] Ring Cycle is an example of, For ten points, what type of dramatic art driven by music?

Answer: opera (accept opera seria and/or opera buffa)
(Bonus 13) This man was commissioned by Sergei Diaghilev of Ballet Rus to write music for Ala i Lolli, which became his Scythian Suite. For ten points each:

Part 1: Name this Russian composer of Peter of the Wolf and the Great Patriotic War inspired War and Peace.
ANSWER: Sergei Prokofiev

Part 2: Prokofiev wrote a Cantata for the 20th Anniversary of this event that brought the Bolsheviks to power in Russia
ANSWER: October Revolution [Accept Revolution of 1917 and Red October]
Part 3: Prokofiev composed the music for a film by Sergei Einsenstein about this historical Russian hero, depicting the Battle of the Ice and the expulsion of the Teutonic knights from western Rus.
ANSWER: Alexander Nevsky
(Tossup 14) A character in this novel gives birth to Daisy and Demi after marrying her neighbor's tutor, John Brooke. In this novel, one of Marmee's daughters receives a piano from John Laurence and (*) dies of scarlet fever when she helps nurse a sick baby, devastating her three sisters. For ten points, name this novel by Louisa May Alcott about Meg, Jo, Beth, and Amy March.

## Answer: Little Women

In a short story by this author, "There Will Come Soft Rains," an automatic house continues to function in a nuclear wasteland. For ten points each,

Part 1: Name this American science fiction writer, who described Guy Montag's conflicted feelings about burning books in another novel.
Answer: Ray Bradbury (accept Ray Douglas Bradbury)

Part 2: Guy Montag appears in this Ray Bradbury novel, whose title refers to the temperature at which paper supposedly combusts.
Answer: Fahrenheit 451

Part 3: At the beginning of Fahrenheit 451, Guy Montag has this profession. Montag's commander, Beatty, instructs him to destroy his own house in his capacity as one of these people.
Answer: fireman (accept firemen; do not accept or prompt on "firefighter")
(Tossup 15) One of this man's final works was a UFO shaped Annunciation Orthodox Church made for the Milwaukee Synod. This man designed a work sometimes known as the Kaufman House, which protrudes over a Pennsylvania (*) waterfall. Art Collector Solomon Guggenheim names a New York Art Museum with a conical shape designed by this architect. For ten points, name this architect of Fallingwater.

ANSWER: Frank Lloyd Wright
(Bonus 15) A modern artist from this nation founded the "Superflat" postmodern movement which uses the native "manga" as inspiration for the subjects. For ten points each:
Part 1: Name this homeland of Takashi Murakami. A 19th century artist from this nation named Hokusai used the medium of ukiyo-e to depict Mt. Fuji.
ANSWER: Japan
Part 2: Hokusai's Thirty-Six Views of Mt. Fuji includes this painting of what is often wrongly believed to be a Tsunami crashing down on a cargo boat.
ANSWER: The Great Wave Off Kanagawa
Part 3: This "Last Grandmaster of Ukiyo-e" created the series The Fifty-three Stations of the Tōkaidō, depicting all the stations along a road linking the imperial capital of Kyoto to the Shogun's in Edo.

## ANSWER: Hiroshige

(Tossup 16) This scientist's namesake coefficients describe the probabilities of emission and absorption. This scientist won the Nobel Prize in Physics for explaining an effect in which light causes the emission of electrons. During this man's (*) Annus Mirabilis, he released papers explaining time dilation and length contraction, as well as the photoelectric effect. For ten points, name this scientist who described special relativity and wrote the equation $E=m c 2$ [ $E$ equals M C squared].

## Answer: Albert Einstein

(Tossup 16) The Polflucht is a now discredited explanation on why this geological phenomenon occurs. For ten points each:
Part 1: Name this theory developed by Alfred Wegener in the early 1900s which posits Earth's largest land masses moved over time.

## ANSWER: Continental Drift

Part 2: Alfred Wegener first thought up "Continental Drift" after realizing South America seems like it could connect to this continent to its east.
ANSWER: Africa
Part 3: This 19th century explorer who lived before Wegener came up with a rudimentary form of "Continental Drift." He also names a current off the coast of Peru that is often disrupted by El Niño.
ANSWER: Alexander von Humboldt

## Tiebreaker

(Tossup 17) One of these places in Guangzhou is known for its distinctive lighthouse and is named Huaisheng. One of these places that is currently a cathedral was originally built by Abd al-Rahman in Cordoba, Spain. (*) The oldest one of these places in China is the "Great" one of Xi'an. One of these places known as al-Aqsa was built on the Temple Mount in Jerusalem. For ten points, name these places of worship used by Muslims for prayer. Answer: mosque (prompt on Islamic places of worship or similar answers)
(Bonus 17) Julius Streicher published a children's book named Der Giftpilz that expressed this discriminatory view. For ten points each:

Part 1: Name this term coined by Frenchman Ernest Rena, influenced by Voltaire's anti-Judaic views.
ANSWER: Anti-Semitism [Anti-semite]
Part 2: Anti-Semitism manifested in 1930s in various ways, including forcing German-Jewish citizens to wear this symbol on their clothing.
ANSWER: The Star of David [Accept Magen David]

Part 3: Stalin speeches in the 1940s would use this euphemism, akin to wealthy city-dwellers, to refer to Jews not fully loyal to the USSR.
ANSWER: Rootless Cosmopolitan

