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## Round 10: Tossups

1. In one culture, imugis mature into these beings while in possession of a Yeouiju ["yuh-EE-joo"]. The "pig" variety of these beings were created by the Hongshan culture, and four of these rule over the North, South, East, and West Seas in addition to controlling (*) wind and rain. Liu Bang is said to have been conceived after his mother dreamt of one of these creatures, and five-toed ones could only be used by the Son of Heaven. One type has 117 scales representing yin and yang, and unlike their Western counterparts, they do not have wings. For ten points, what flying reptile was a symbol of the Chinese emperor?
ANSWER: Eastern (or Oriental) dragons (prompt on "serpent"; do not accept or prompt on "snake")
2. Tourism Minister Derek Hanekom failed in an attempt to remove this organization's president in 2016 after bribery charges on the Gupta family. The Congress of the People is a splinter faction named after the meeting at which this group's Freedom Charter was declared. After the Sharpeville Massacre, this party formed the militant (*) Spear of the Nation, some of whose members were convicted in the Rivonia Trial. The ban on this party was lifted by F. W. de Klerk, which was followed by its electoral victory after the repeal of apartheid. For ten points, what political party once led by Nelson Mandela?
ANSWER: $\underline{\mathbf{A}}$ frican $\underline{\text { National }} \mathbf{C o n g r e s s}$
3. BR-230 is a highway traveling through this region, which receives dust from the Bodélé Depression in the Sahara Desert. In this region, the Sateré-Mawé people use gloves filled with bullet ants during initiation rites, while Manú National Park contains over 1300 species of butterflies. One apex predator of this region is the black (*) caiman, the largest extant alligator. Other aquatic species here include the electric eel and the red-bellied piranha, which can both be found in the Orinoco River. For ten points, what rainforest covers much of Brazil and shares a name with South America's longest river?
ANSWER: Amazon rainforest/jungle or Amazonia
4. One character in this book found himself unable to concentrate upon a verse of the Bible because of an advertisement for "Denham's Dentifrice". He met a girl who described herself as "seventeen and crazy" because her uncle told her the two always go together. That character, who asked the protagonist if he's happy, is (*) Clarisse McClellan. Its protagonist, who killed Captain Beatty, is aided by Professor Faber in his escape from the Mechanical Hound. For ten points, name this Ray Bradbury novel about Guy Montag, a fireman who burns books in a dystopian future.
ANSWER: Fahrenheit 451
5. The Gortyn code governed part of this region, which produced Vasiliki and Kamares pottery. The Karfi peak sanctuary became a center of population after the encroachment of the Dorians. Arthur Evans identified a culture on this island that may have been wiped out by the Thera eruption, whose inhabitants used the (*) Linear A script. This island was also the site of a palace complex at Knossos before the Mycenaean period that has been linked with the Labyrinth trapping the Minotaur. For ten points, what Greek island was the site of the Minoan civilization?
ANSWER: Crete
6. This quantity was measured by the TOPEX/Poseidon experiment, and the Coupled Model Intercomparison Project was used to model it for the Fifth Assessment Report of the IPCC. SIDS countries are vulnerable to fluctuations in this value, which were also the cause of the closure of the (*) Bering land bridge. This quantity is currently 130 meters above its value during the last glacial maximum. For ten points, what measurement is predicted to rise by a meter or more in the next century due to the melting icecaps?
ANSWER: sea level
["SIDS" refers to Small Island Developing States.]
7. Mozart wrote 4 concertos for this instrument. In most symphonies, the section of this instrument is split into "high" and "low" parts. The finale of Stravinsky's Firebird begins with a solo for this instrument, and three of this instrument represent the (*) wolf in Peter in the Wolf. The double type of this instrument enables the player to switch between the F division and the B-flat division. This instrument is played with the right hand inside the bell, and pitch can be changed by altering its position. For ten points, name this instrument, which, despite its name, is not from France.
ANSWER: French horn
8. In cities on this island, a syphograntus is elected to represent 30 households, each of which owns two slaves. The Prince of those cities is elected for life, although he may be removed on suspicion of tyranny. Chamber pots and the chains of criminals are made of (*) gold on this island; atheism is discouraged, although not illegal. All priests are allowed to marry and divorces are legal on this island, on which is a welfare state with free hospitals. Houses are rotated among citizens every ten years, although there is no private property. For ten points, name this creation of Sir Thomas More whose name now refers to a perfect community.
ANSWER: Utopia
9. At the battle of Pavia, King Francis I was captured by Imperial Habsburg troops just after seizing control of this city. This city was also the capital of both the Cisalpine republic and another later Napoleonic Kingdom. Inside the city Cathedral, Napoleon crowned himself with the Iron Crown of (*) Lombardy. During the Middle Ages, this city was repeatedly razed to the ground Emperor Frederick Barbarossa, after taking charge of the rebel Lombard league. Initially lead by a Podesta, and later by Dukes, this city was a major center of trade. For ten points, name this city in Northern Italy.
ANSWER: Milano
10. This author reintroduced the idea that humans are distinguished by working to reduce their labor through construction, homo faber, into English-language academic dialogue. Homo faber is one of the three distinguishing characteristics in this thinker's conception of humanity, along with (*) animal laborans and zoon politikon, all of which together form her vita activa. This theorist argued that the Third Reich represented an entirely new form of government built on fear in, "On Totalitarianism." For 10 points, name this German-born Jewish American, who, in her book, "Eichmann in Jerusalem", coined the "phrase banality of evil".
ANSWER: Hannah $\underline{\text { Arendt }}$
11. Allred and Rochow posited that this quantity can be calculated by taking the effective nuclear charge over the square of the covalent radius using Slater's Rules. Robert Mulliken calculated this quantity to be the negative of chemical potential through a finite difference approximation of the total energy. (*) Nitrogen has a value of 3.04 for this quantity as measured on a scale named for Linus Pauling, created as part of a theory concerning the strength of covalent bonding. Fluorine has the highest value of - for ten points - what property that reflects an atom's ability to attract electrons?
ANSWER: electronegativity (do not accept "electron affinity")
12. At the start of a work by this man, three figures pass the narrator multiple times like a spinning vase. The title Aeolian shepherd is the subject of this poet's poem where the speaker notes, "The very music of the name has gone," "into my being, and each pleasant scene," and "is growing fresh before me as the green". (*) The figure of this poet's most famous work possesses an Attic shape, is "some shape of beauty moves away the pall / From our dark spirits", and ends by noting that "beauty is truth, truth beauty". For ten points, name the poet of works such as "Ode to Indolence", Endymion and "Ode on a Grecian Urn".
ANSWER: John Keats
13. This commander delivered a speech in which he stated that the trick to winning a war is to make "the other poor dumb bastard die for his country". In the "Race to Messina", forces under this man arrived at the tip of Sicily before those of Bernard Montgomery, and in Operation Quicksilver, this man led a ${ }^{*}$ ) decoy army that would supposedly attack Pas de Calais ["pah de ca-LAY"] on D-Day. This commander was out of combat for almost a year after slapping a soldier with shell-shock. Nicknamed "Old Blood and Guts" was, for ten points, what American tank commander of the Third Army in World War II?
ANSWER: George Smith Patton, Jr.
14. The Panathenaic is the world's only one of these made of marble, and is where the Olympic flame is transferred to the host city. One of these places in Munich with a color-changing ETFE exterior was designed by Herzog and de Meuron ["moy-rohn"]. That duo, along with Ai Weiwei, designed one of these buildings inspired by ceramics and consisting of a red inner (*) seating area surrounded by a metal cage; that complex is nicknamed the Bird's Nest. The Superdome is an example of - for ten points - what functional buildings that can have a racetrack or a playing field? ANSWER: sports stadiums (accept anything related to athletic complexes)
15. This musician's recording of "Heebie Jeebies" supposedly introduced scat singing, though there is evidence of the form predating that recording by fifteen years. He first gained fame played second cornet in King Oliver's Creole Jazz Band, but would later lead his own groups, including his Hot Five and Hot Seven. He was nicknamed (*) Satchmo, and this trumpeter recorded a noted version of George Gershwin's "Summertime" with Ella Fitzgerald. For ten points, name this jazz trumpeter who recorded renditions of "When the Saints Go Marching In" and "What a Wonderful World."
ANSWER: Louis Armstrong (prompt on "Satchmo" before mention)
16. One of this character's most prized possessions is a tape playing "Hello, Dolly!", and he kicks MO in the face after being identified as foreign. He gets struck by lightning holding an umbrella for his unconscious love interest, and forces his companion Hal to stay behind as he is taken to the (*) Axiom. There, he convinces Captain B. McCrea to override Directive A-113 and defeat AUTO with the help of EVE, before returning to Earth, which he had been programmed to clean up. Friends with a cockroach is - for ten points - what trash-compacting robot, the star of a Pixar film?
ANSWER: $\underline{W A L L} \cdot \mathbf{E}(\underline{\text { Waste}} \underline{\text { Allocation }} \underline{\text { Load }} \underline{\text { Lifter: }} \underline{\text { Earth class })}$
17. "The Poverty of Philosophy" was written to criticise an early proponent of this ideology who wrote a book entitled, "The Philosophy of Poverty." That proponent of this political ideology concluded that (*) "Property is theft" in another work. The American Letter Mail Company was run by an essayist in this field, Lysander Spooner. A South Braintree, Massachusetts murder was blamed on two advocates of this system, who were eventually convicted of murder. They were named Nicola Sacco and Bartolomeo Vanzetti. For ten points, name this political philosophy which advocates statelessness.
ANSWER: anarchism (do not prompt on libertarianism)
18. In Friedmann-Lemaître spacetime, this effect is equal to the ratio of scale constants minus one, while in Minkowski spacetime it is linear to the Lorentz factor. Vesto Slipher investigated this effect in Messier 51a as well as the Andromeda Galaxy, which supported Edwin Hubble's theory that the universe was (*) expanding, and that some galaxies were moving further away. Relativistic time dilation decreases frequency of light, resulting in this effect. The Doppler effect can cause - for ten points - what phenomenon in which radiation from an object increases in wavelength?
ANSWER: redshift (prompt on "Doppler shift" or "Doppler effect" before mention)
19. In one short story by this author, a religious man living in Yudin helps the narrator by providing a new axle, and in another, the narrator sees the emptiness of an unnamed guest. "Kasyan of the Beautiful Lands" and "Hamlet of the Shchigrovsky District" appear in his collection A Sportsman's Sketches. This author wrote a novel that takes place at the estates of Nikolskoe and Marino, and at the home of the (*) Bazarovs. In that novel by this author, Katya lives with Madame Odinstova, and Pavel and Nikolai encounter the nihilistic ideas of Arkady Kirsanov. For ten points, name this Russian author of Fathers and Sons.
ANSWER: Ivan Turgenev
20. This author of Women Who Work: Rewriting the Rules of Success had scarves recalled because they did not meet federal flammability standards. Although this non-politician supported Cory Booker's Senate campaign, she endorsed Mitt Romney in 2012 and "Here Comes The Sun" was her entrance music to the 2016 (*) Republican National Convention. She converted to Judaism shortly before her wedding to Jared Kushner, who serves as Senior Advisor to her father. For ten points, name this daughter of Ivana Zelníčková and the President of the United States. ANSWER: Ivanka Trump (prompt on partial answer)

## TIEBREAKER:

The observation of Bjorken scaling confirmed this thinker's parton model for hadrons, which predicted the existence of quarks. This man was assigned to Hans Bethe's division at Los Alamos, and together they developed a mechanism to calculate the yield of a fission bomb. He pioneered the concept of (*) nanotechnology with his lecture "There's Plenty of Room at the Bottom", and he won the 1965 Nobel Prize in Physics for his work on quantum electrodynamics. For ten points, name this Cal Tech professor whose namesake diagrams show interactions between particles.
ANSWER: Richard Feynman

## Round 10: Bonuses

1. Musicians have a variety of methods to warm up. For ten points each:
[10] Name this series of successive notes ordered by pitch, which includes chromatic, major, minor, and diatonic types.
ANSWER: Scale
[10] This tone is played, typically by an oboe, as a standard to tune to. In 1859, the French government passed a law setting it approximately 5 hertz lower than today.
ANSWER: A4 (accept A at $\mathbf{4 4 0 ~ H z}$ )
[10] This word describes a short, difficult instrumental piece meant to improve technique or demonstrate skill. ANSWER: Étude
2. This leader's attorney compared her trial with the prosecution of Socrates and Jesus Christ. For ten points each:
[10] Name this former president of South Korea who was suspended after revelations that a friend approved her speeches. Her impeachment was confirmed in March 2017.
ANSWER: Park Geun-hye (prompt on "Park")
[10] Part of the outrage against Park has been her "seven missing hours" during this tragedy, when almost 300 people drowned in April 2014.
ANSWER: Sewol ferry sinking (accept descriptions, but Sewol is needed)
[10] In the weeks leading up to her ouster, there were rumors that this former U.N. Secretary-General would run to take her place.
ANSWER: Ban Ki-moon
3. Hayreddin Pasha was one of these mercenary units under the Ottoman Empire. For ten points each:
[10] This is the term used to describe a ship captain sponsored by a government to assault vessels of other nations, usually in exchange for a portion of the plunder.
ANSWER: Privateer (do not accept or prompt on "pirate")
[10] This type of document is given by governments to privateers as proof that the privateer is authorized by the government to engage in militaristic and confiscatory behavior.
ANSWER: Letter of marque
[10] This pirate captain and privateer, known as "El Draque" by the Spaniards, was second-in- command of the English fleet that attacked the Spanish Armada. He was knighted in 1581 by Queen Elizabeth I.
ANSWER: Sir Francis Drake
4. This theory was introduced by Jame Wilson and George Kelling. For ten points each:
[10] This theory suggests that punishing minor offenses like vandalism and loitering will create an environment that deters much larger-scale crimes.
ANSWER: Broken Windows Theory
[10] This former mayor of New York City was a vocal proponent of the Broken Windows Theory and appointed William Bratton as police commissioner to implement a crackdown on minor crimes.
ANSWER: Rudolph William Louis "Rudy" Giuliani
[10] Crime rates in New York City did go down after Giuliani's reforms, but the authors of Freakonomics argued it was due to the national legalization of this practice 20 years before the beginning of his term.
ANSWER: Abortion
5. This form of poetry was created by Giacomo de Lentini. For ten points each.
[10] Name this form of poetry whose Shakespearean version consists of three quatrains and a closing couplet characterized by an ABAB rhyme scheme.
ANSWER: sonnet
[10] In this poet's collection, Sonnets from the Portuguese, she notes in one sonnet to call her by her pet-name and that she "will answer and not wait."

## ANSWER: Elizabeth Barrett Browning

[10] Another sonnet from Sonnets from the Portuguese begins with this line where the poet begins to count the number of ways based on this line.

## ANSWER: "How Do I Love Thee"

6. For ten points each, name these facts about conservation in the midwest:
[10] This national mammal of the United States was hunted to near extinction for its hide by early American settlers. ANSWER: American Bison (accept, but do not otherwise reveal, American Buffalo)
[10] This American conservationist tracked the population of bison on the Great Plains, providing the best record of their rapid depletion. This man served as the first director of the Bronx Zoo.
ANSWER: William T. Hornaday
[10] The National Bison Range is one of these federally designated locations managed by the Fish and Wildlife Service. The first of these was Florida's Pelican Island.

## ANSWER: National Wildlife Refuge

7. For ten points each, name the following data structures.
[10] This "first-in-first-out" data structure simulates a pile of papers, where the only accessible element is the most recent one added.
ANSWER: stack
[10] In the "min-" version of this data structure, a binary tree has each node's children greater than the node. Its sort entails selecting the root, which is also the smallest element, in constant time.
ANSWER: heap
[10] This data structure's nodes contain data and pointers, it has has constant insertion time, and Floyd's "tortoise-and-hare" algorithm can be used to detect cycles in this data structure.
ANSWER: (singly) linked list
8. This art movement rejected the Munich New Artist Association. For ten points each:
[10] Name this art movement that focused on spiritual themes and nature and included famous painters such as Franz Marc, August Macke.
ANSWER: The Blue Rider Movement (Accept Der Blaue Reiter)
[10] This Russian painter's set the basis for the Blue Rider movement with his namesake work and he famously painted ovals being intersected by irregular rectangles in Composition 7.
ANSWER: Wassily Kandinsky
[10] This painter began his early career by painting for the 1912 Blue Rider Exhibitions and is founder of the avant-guard Suprematist movement.
ANSWER: Kazimir Malevich
9. Jews have lived in this country since the Kingdom of Aksum. For ten points each:
[10] The Jews in this African nation with capital at Addis Ababa are known as Falasha.

## ANSWER: Ethiopia

[10] During this 1984 Israeli military action, many of the Falasha were airlifted out of Sudan because of its famine.

## ANSWER: Operation Moses or Mivtza Moshe

[10] This man was the Prime Minister of Israel during Operation Moses. As soon as he confirmed the press rumors that Operation Moses was occurring, Sudan was pressured by several Arab nations to end the airlifts, which they did.
ANSWER: Shimon Peres
10. Snakes have an important role to play in many cultures. For ten points each:
[10] According to the some native groups in central Australia, Uluru was said to have been created by this spectral snake erupting from underground.
ANSWER: Rainbow Serpent
[10] This embodiment of chaos was the enemy of Ma'at and fought Ra ; he was depicted as an extremely long snake.
ANSWER: Apophis or Apep
[10] This Gorgon was given snakes for hair after sleeping with Poseidon in one of the Athena's temples.
ANSWER: Medusa
11. God can do impossible things - like having five fingers in a four-fingered universe. For ten points each:
[10] The Abrahamic religions believe in a God with this quality of being able to do anything.
ANSWER: Omnipotence
[10] Questioning God's omnipotence, Bart Simpson asked if God could make one of these so spicy that God could not eat it.
ANSWER: Burritos
[10] When Bart Simpson pointed out an apparent paradox of omnipotence, he did not end religion. Name this Catholic belief that faith prioritizes reason in terms of knowledge.

## ANSWER: Fideism

12. For ten points each, answer some questions about grammatical structure in poetry:
[10] This is the basic metrical unit that forms parts of a line or verse in poetry.
ANSWER: $\underline{\text { foot (Accept feet) }}$
[10] This type of foot consists of a stressed syllable followed by two unstressed syllables in English while it is one long syllable followed by two short syllables in Greek and Latin.

## ANSWER: dactyl

[10] This most commonly utilized metrical line type in English poetry is five feet each consisting of an unstressed syllable followed by a stressed syllable.
ANSWER: iambic pentameter
13. This classification of plants includes the monocots and eudicots. For ten points each:
[10] Name this clade of flowering plants- unlike the gymnosperms, these plants often produce seed bearing fruits.
ANSWER: angiosperms
[10] This the part of the flower containing the female sex organs. In most flowers, it is located in the center, surrounded by several stamens. The ovary wall in this part of a flower develops into a fruit when fertilized.
ANSWER: carpel
[10] This is the term for a flower that contains both female and male sex organs, allowing for self-pollination.
ANSWER: perfect flower (accept hermaphroditic)
14. This house's duke Richard defeated Henry VI at the First Battle of St. Albans. For ten points each:
[10] Name this British dynasty that ended with the death of King Richard III.

## ANSWER: York

[10] The house of York was opposed by the Lancastrians, led at times by this wife of Henry VI who led forces and was taken prisoner at the Battle of Tewkesbury.
ANSWER: Margaret of Anjou
[10] Margaret of Anjou was a participant in the Wars of the Roses, which ended at this decisive battle where Richard III was killed.
ANSWER: Battle of Bosworth Field
15. The members of this group have full valence shells. For ten points each:
[10] Name this group of gases on the rightmost end of the periodic table. They are notably inert.
ANSWER: noble gases (accept Group $\underline{18}$ or Group VIIIA)
[10] Neil Bartlett proved that noble gases can form compounds when he reacted this element with platinum hexafluoride.
ANSWER: xenon (prompt on "Xe")
[10] Many noble gas compounds, such as xenon difluoride, are described by this term because they do not obey the octet rule, appearing to have more than 8 valence electrons.
ANSWER: hypervalent
16. Arabella is jealous of her sister when she attracts Richard Lovelace. For ten points each:
[10] Lovelace is attracted to the title character of this epistolary novel who eventually kills herself after suffering at the hands of her family and Lovelace.
ANSWER: Clarissa
[10] Clarissa was written by this 18th century author wrote The History of Sir Charles Grandison in response to a Henry Fielding novel.
ANSWER: Samuel Richardson
[10] One of Richardson's most famous works is this other epistolary novel where Mr. B takes control of and tries to rape the title character.
ANSWER: $\underline{\text { Pamela }}$
17. Answer the following questions about artworks with a certain theme, for ten points each.
[10] This large scale painting by got its popular nickname from a dark varnish added to it.
ANSWER: The Night Watch or The Shooting Company of Franz, Banning Cocq
[10] This painting by Vincent Van Gogh currently hangs in the Museum of Modern Art. It shows a village, church spire and a large cypress tree against a swirling sky illuminated by the title objects.
ANSWER: The Starry Night
[10] This American painter used the term "nocturne" for his paintings of night scenes, including one showing a falling rocket.
ANSWER: James Abbot McNeil Whistler
18. Magnetic fields are generated by electric currents. For ten points each:
[10] A law named after this man says that the line integral of the magnetic field around a closed curve is equal to the current enclosed by the curve times a constant.
ANSWER: André-Marie Ampère
[10] In Ampère's circuital law, that constant is is denoted by mu-nought and known by this name. Its value is $4 \pi$ times 10 ${ }^{-7}$ newtons over amperes squared.

## ANSWER: vacuum permeability

[10] The reciprocal of the product of vacuum permeability and vacuum permittivity is the square root of this other constant.
ANSWER: speed of light in a vacuum (prompt on "c")
19. This artist's Coloring Book was the first streaming-only album to be nominated for a Grammy Award. For ten points each:
[10] Name this Chicago native who broke out with his 10 Days and Acid Rap mixtapes.
ANSWER: Chance the Rapper (accept Chancelor Johnathan Bennett)
[10] Chance contributed to this album's "Ultralight Beam" and "Waves". Its creator called it a "living breathing changing creative expression" to explain its numerous tracklist changes.
ANSWER: The Life of Pablo
[10] On "Ultralight Beam", Chance raps, "tryna snap photos of familia // my daughter look like" this artist, "you can't see her." This Australian's music videos feature Maddie Ziegler.
ANSWER: Sia Furler
20. This place is the "Hog Butcher of the World, Tool Maker, and Stacker of Wheat,". For ten points each:
[10] Name this poem where there are "painted women under the gas lamps luring farm boys" and where women and children go hungry in a work about the title location.
ANSWER: Chicago (Prompt on the "Windy City")
[10] Chicago is a work which was written by this Pulitzer Prize winning poet who discusses his life in the midwest in Cornhuskers.
ANSWER: Carl Sandburg
[10] In this Saul Bellow novel, the title character states that "I am an American, Chicago-born," where he was by his half-blind mother and Grandma Lausch.
ANSWER: The Adventures of Augie March

## EXTRA:

In this work, Pierre Aronnax is invited to hunt a beast whom he believes is a large narwhale. For ten points each:
[10] The "Nautilus," a technologically advanced submarine, is piloted by Captain Nemo in this novel.
ANSWER: Twenty Thousand Leagues Under the Sea or Vingt mille lieues sous les mers: Tour du monde
sous-marin
[10] This author of "Twenty Thousand Leagues Under the Sea" also wrote, "Journey to the Center of the Earth" and, "From the Earth to the Moon"
ANSWER: Jules Verne
[10] This is the name of the vessel that takes Canadian harpoonist Ned Land and French marine biologist Pierre Aronnax to the "Nautilus". They believed they would be hunting a creature destroying boat, but instead this boat was destroyed by the submarine.
ANSWER: USS Abraham Lincoln

