

Delta Burke 2015
Round 9

1. Bernie Sanders wrote and narrated a 1979 documentary on this historical figure he called a hero of his. This man famously stated, "While there is a lower class I am in it; while there is a criminal element, I am of it; and while there is a soul in prison, I am not free." He gave that speech at his sentencing for violating the Espionage Act in 1918 by giving a speech against US involvement in World War I. Two years later, this man got over 3% of the presidential vote while in prison. FTP what co-founder of the American Railway Union ran for president on the Socialist ticket five times?

ANSWER: Eugene V. Debs

2. The selectivity filter for one type of these proteins is formed from alpha helices and P segments. Fruit flies with the *shaker* mutation have a defect in a type of these proteins, which can be studied using micropipettes in order to obtain a patch clamp recording. Tetrodotoxin binds to and blocks the activity of a type of these proteins. Action potentials are generated by the opening and closing of their voltage-gated type, while their ligand-gated type can respond to neurotransmitters. For 10 points, name these proteins that allow charged atoms to move across a membrane.

ANSWER: ion channels [accept specific types; prompt on "membrane proteins"]

3. In Orwell's *Animal Farm*, Napoleon enlists these animals to lie about having increasing rations in front of the visiting human Mr. Whymper. Don Quixote attacks a group of these animals he mistakes for the army of Alefanfaron. In a work by Voltaire, Candide and Cacambo leave El Dorado with 102 of these animals, but arrive in Surinam with only two remaining. In the Rabelais work *Gargantua and Pantagruel*, Panurge drowns his enemy Dindenault [*DIN-deh-noh*] by tossing one of these animals off a ship, causing the others to rush overboard after it. FTP what are these animals, black examples of which are asked in a nursery rhyme if they have any wool?

ANSWER: sheep

4. In this movie, explosives destroy barrels of heroin-flavored bananas. The protagonist of this movie believes Dom Perignon above 38 degrees is as bad as the Beatles without earmuffs. Operation Grand Slam is central to this movie, in which a woman dies of "skin suffocation." A character in this film asks "Do you expect me to talk" and another responds "No...I expect you to die" in a scene with a laser. In this movie, Honor Blackman plays a pilot and Harold Sakata plays a henchman who uses his hat as a weapon. For 10 points, name this movie featuring Pussy Galore, Oddjob, and a villain with the first name Auric, who plans to set off a bomb inside Fort Knox.

ANSWER: Goldfinger

5. In this god's myth system, the first world was populated by giants and ruled by his mortal enemy. After witnessing giants eat acorns for sustenance, this god destroyed that Jaguar-Sun world in disgust. Another one of this deity's aspects is Ehecatl, the wind god. This deity later became human and ruled the kingdom of Tula until his mortal enemy, the Smoking Mirror, arrived on Earth and coerced this god to drunkenly rape his sister. After realizing what he had done, this god eventually sailed away from Tula on a raft of snakes. FTP name this primary Aztec deity, known as the "Feathered Serpent."

ANSWER: Quetzalcoatl

6. One of these statements concerning the number of varieties and blocks is named for Fisher and is used in design theory. Another of these statements named for Jensen concerns convex and concave functions. One of these statements named for a polygon is reversed in Minkowski space, while another compares the inner product of two vectors with the product of their magnitudes. These statements are reversed when multiplying or dividing by a negative number. Cauchy and Schwarz name one of these statements, while another involves the lengths of the sides of a triangle. For 10 points, name these relationships that state two quantities are not equal.

ANSWER: inequalities [accept word forms and more specific answers]

7. A central contention of this economist was represented mathematically by Hicks and Hansen in their IS-LM model. This thinker believed that saving beyond what is necessary for planned investment risked recession. This economist's contemporary Dennis Robertson used his ideas to coin the term "liquidity trap." He argued against harsh monetary reparations levied against Germany after World War I in his book *The Economic Consequences of the Peace*. FTP what British economist argued for government stimulus spending to stimulate aggregate demand to fight recession in his magnum opus, *The General Theory of Employment, Interest, and Money*?

ANSWER: John Maynard Keynes

8. This king was given the world's largest atlas by Johannes Klencke and other Dutch merchants. Clifford, Arlington, Buckingham, Ashley, and Lauderdale were ministers of this king whose last initials created the word "cabal." Thomas Blood tried to steal the Crown Jewels during the reign of this king, who gave William Penn some land. Israel Tonge convinced Titus Oates to devise a plot to assassinate this king, who was also the target of the Rye House plot. This man's father was executed during the English Civil War, and he was succeeded by his brother James II. For 10 points, name this first English king following the Restoration in 1660.

ANSWER: Charles II [prompt on "Charles"]

9. One of these works by Josquin [ZHUHS-kan] des Prez [duh PREY] is named for the Duke of Ferrara and uses *soggetto cavato*. Machaut [ma-SHOH] composed the earliest cyclic type of this work, and Palestrina composed one that "saved" polyphony. Haydn included a kettledrum in one of these works composed "in time of war." Mozart composed a "great" one in C minor and Beethoven composed a "solemn" one in D major. Kyrie [KEER-ee-ey] and Agnus Dei are two of the sections usually in this type of work, which is called a requiem when written for the dead. For 10 points, name this type of composition, one of which was composed in B minor by J.S. Bach.

ANSWER: mass [or missa; or messe; or misa; accept specific types]

10. In one poem by this author, Thorberg Skafting builds a ship called The Long Serpent for the titular Norwegian king. This author included the narrative poem "The Saga of King Olaf" in a collection patterned after Dante entitled *Tales of a Wayside Inn*. That collection includes a poem by this author that describes an event from "the eighteenth of April, in Seventy-Five" in which the title figure asks for a signal of "[o]ne, if by land, two, if by sea." This author of "Paul Revere's Ride" used the meter of *The Kalevala* for another narrative poem set "by the shores of Gitchee-Goomee." FTP name this 19th-century American author of "The Song of Hiawatha" and "The Village Blacksmith."

ANSWER: Henry Wadsworth Longfellow

11. The last one of these people wrote the *Zafarnama*, or "epistle of victory," and also pretended to behead five volunteers by exiting a tent with a bloody sword. The third one of these people required visitors to eat food in a gurdwara dining hall called the langar. After the death of the first one of these people, some Hindus cremated flowers while some Muslims buried flowers. The fifth one of these people created a text called the Adi Granth, and the aforementioned last one of these people, named Gobind Singh, founded the Khalsa order, whose members possess uncut hair and a sword called a kirpan. For 10 points, name these religious leaders, the first of whom, Nanak, founded Sikhism.

ANSWER: gurus

12. The energy landscape of this process is funnel-shaped according to a Peter Wolynes model. This process in *E. coli* is aided by the GroEL/GroES system. An intermediate in this process is called the molten globule state. Hsp70 is an example of a molecular chaperone that assists this process, which is the subject of Levinthal's paradox. Denaturation is similar to the opposite of this process, and flaws in it are a common feature of prion diseases. This process might begin with the formation of secondary structures, such as alpha helices or beta sheets. For 10 points, name this process in which a linear polypeptide is transformed into its three-dimensional conformation.

ANSWER: protein folding [accept reasonable equivalents]

13. This city's Museum of the Orient includes a wide range of goods including Indonesian textiles and Chinese snuff bottles. The date of a military coup names the 25th of April Bridge located in this city. This city's oldest district, Alfama, includes the Castle of Sao [*soo-way*] Jorge, where members of the House of Braganza are buried. A Christ the King statue stands on the southern banks of the Tagus River in this city, and another bridge here is named after the first European to reach India by sea. For 10 points, name this capital and largest city of Portugal.

ANSWER: Lisbon [accept Lisboa]

14. Werner Herzog's film *Fitzcarraldo* centers on a rubber baron who wants to build one of these objects in a jungle. Zaha Hadid designed one of these buildings in Guangzhou with a twin boulder structure. San Francisco is home to one of these buildings called the War Memorial, and Oslo is home to one whose white sloping roof dips into the sea. Jorn Utzon designed one of these buildings in Sydney that has white vaulted roof shells. For 10 points, name these theaters that include La Scala in Milan and are where works like Bizet's *Carmen* can be performed.

ANSWER: opera houses [accept equivalents; prompt on less specific answers such "theatres"]

15. One of this nation's strongest political parties in the mid-20th century was the PKI, which was destroyed by this country's transition to the "New Order." In the 16th century, the Portuguese set up trading posts and forts on the islands of Ternate and Solor in this modern day nation. After Portugal announced the decolonization of Timor, this nation annexed the newly freed state. *The Look of Silence* is a documentary sequel to a 2012 documentary about 1960s killings of communists in this country titled *The Act of Killing*. For 10 points, name this island nation led in the past by Suharto and Sukarno.

ANSWER: The Republic of Indonesia

16. The title character of a poem by this man wears "gay bracelets and bright feathers" after formerly "digging potatoes and spudding up docks." In another poem by this man, the titular "frail, gaunt, and small" creature flings his soul "upon the growing gloom" and sings a "happy good-night air." This author of "The Ruined Maid" and "The Darkling Thrush" wrote an 1878 novel in which Diggory Venn and the title character are unable to save Eustacia Vye from drowning. Another novel by this author begins with Michael Henchard selling his family for five guineas. For 10 points, name this English author of *The Return of the Native* and *The Mayor of Casterbridge*.

ANSWER: Thomas Hardy

17. A county in this state is the subject of Kristen Green's book *Something Must Be Done*, which is about a county that closed its public schools in 1959 instead of desegregating. This state was home to the Readjuster Party during the post-Reconstruction era, and the term Massive Resistance was used to refer to this state's anti-integration policy. This state names a Supreme Court case that struck down a law banning interracial marriage. A ship named for this state battled the USS *Monitor* at Hampton Roads, and the capital of the Confederacy moved from Montgomery to a city in this state. For 10 points, name this state where Sally Hemings lived at Monticello.

ANSWER: Virginia

18. John Benjamin Dancer designed several of the instruments used in this scientist's experiments. This man's namesake law states that the heat generated by a current through a conductor is proportional to the resistance and the square of the current. During the 1840s, this man used a water friction apparatus to prove the conservation of energy. This man is first alphabetically in the name of an effect that states when a gas expands without performing external work, the gas decreases in temperature. One calorie equals 4.184 of this man's namesake SI unit, which is often converted into kilowatt-hours. For 10 points, name this physicist who names the SI unit of energy.

ANSWER: James Prescott Joule

19. The speaker of three works in this form declares that “No hand will reach into such depths/To argue with me over your handful of bones.” Those works in this form were written after the suicide of a former lover named Romelio Ureta. A cycle of 55 works in this form were written to memorialize Vera Knoop, a playmate of the author Rainer Maria Rilke’s daughter, and were dedicated to the Greek husband of Eurydice. Poems beginning “Batter my heart, three-person’d God” and “Death, be not proud” are part of a group of 19 works in this form called “Holy” by author John Donne. FTP what traditional poetic form can be classified as Petrarchan or Shakespearean and includes 14 lines?

ANSWER: sonnets

20. Harvard professor Louis Menand traced the origins and influences of this school of philosophy in his book *The Metaphysical Club*. Menand writes that philosophers of this school, like Josiah Royce, saw ideas as a “ways to cope with the world.” A book titled for this philosophical method contended that beliefs can be evaluated by their “cash value,” or sense of utility to the believer. That book was subtitled “A New Name for Some Old Ways of Thinking.” FTP what was this very American school of philosophy advocated for by C.S. Peirce [*PURS*] and William James, which evaluated ideas by their practicality.

ANSWER: pragmatism [accept word forms]

Delta Burke 2015
Round 9 Bonuses

1. Epictetus was a Roman proponent of this philosophical school. FTPE:

[10] What ancient philosophy preached restraint from emotions like fear, jealousy, and anger and got its name from a porch in Athens where its founder taught?

ANSWER: Stoicism

[10] That founder of Stoicism is this thinker referred to as being from Citium to differentiate him from a similarly named philosopher famous for his paradoxes.

ANSWER: Zeno

[10] His student Arrian describes Epictetus refusing to rid himself of this facial adornment even at the threat of having his head cut off, for it helped mark him as a philosopher.

ANSWER: beard

2. A namesake museum in St. Petersburg, Florida, is home to many "masterworks" by this artist, who depicted his wife Gala in the painting *The Great Masturbator*. FTPE:

[10] Name this Spanish Surrealist who included melting watches in *The Persistence of Memory*.

ANSWER: Salvador Dali

[10] A sculpture by Salvador Dali includes one of these animals on top of a telephone. A mobile by Alexander Calder that was commissioned by MoMA depicts a trap for one of these animals.

ANSWER: lobster

[10] Salvador Dali collaborated with this Italian-born fashion designer to make a dress for Wallis Simpson printed with a large lobster. This woman's signature hue was called shocking pink.

ANSWER: Elsa Schiaparelli [*skap-uh-REL-ee*]

3. John Ashbery described this appendage "thrust at the viewer" in his poem "Self-Portrait in a Convex Mirror." FTPE:

[10] What part of the body does Ashbery's speaker describe as "bigger than the head" in that reflection?

ANSWER: hand

[10] This experimental American poet ended one work with the line "nobody, not even the rain, has such small hands," eschewing capitalization, as was his custom.

ANSWER: e.e. cummings

[10] Another cummings poem describes how this relation of the speaker "moved through dooms of love." The speaker of Robert Hayden's "Those Winter Sundays" remembers how this relation woke up early to build a fire.

ANSWER: father

4. Friedrich Bessel predicted this member of the Winter Triangle had an unseen companion. FTPE:

[10] Name this brightest star in the night sky, which is sometimes called the Dog Star.

ANSWER: Sirius A

[10] Sirius A is in this constellation, which names a nearby dwarf galaxy discovered in 2003.

ANSWER: Canis Major [prompt on "Canis" or "Great Dog;" do NOT accept "Canis Minor"]

[10] Sirius A is on the main sequence of this diagram that plots luminosity against temperature.

ANSWER: Hertzsprung-Russell diagram [or H-R diagram]

5. This man's death was captured on the twenty-six second Zapruder film. For 10 points each:

[10] Name this President of the United States who was assassinated in 1963.

ANSWER: John F. Kennedy [or JFK]

[10] JFK was assassinated in Dealey Plaza in this city, which was named for James Polk's VP.

ANSWER: Dallas

[10] This man, the Governor of Texas, was wounded while riding in the limo with JFK when he was assassinated.

ANSWER: John Connally

6. Sigmund Freud called these entities the “royal road to the unconscious.” FTPE:

[10] Freud titled a book for his efforts to interpret the latent content behind the manifest content of what mental experiences?

ANSWER: dreams

[10] One famous patient of Freud, Sergei Pankjief, takes his nickname from a dream he had of seeing six white examples of this animal in a tree, not a place one would usually find them.

ANSWER: wolf or wolves

[10] Freud analyzed his own dream about this female patient of his, known only by her first name, involving her injection with an unclean syringe.

ANSWER: Irma

7. Only twenty-one million units in this system will ever be created. For 10 points each:

[10] Name this digital payment system whose transactions are recorded on a "block chain."

ANSWER: Bitcoin

[10] Bitcoin was invented by this person, who, according to a dubious *Newsweek* cover story, is a 64-year-old Japanese-American man who lives in California.

ANSWER: Satoshi Nakamoto [accept either name in either order]

[10] This online drugs marketplace, Chris Borglum's one-time favorite, used bitcoins to conduct all of its transactions. It was started in 2011 by Ross Ulbricht using the pseudonym Dread Pirate Roberts.

ANSWER: Silk Road

8. The emissivity of these objects is one. For 10 points each:

[10] Name these objects that absorb all the electromagnetic radiation that is incident on them.

ANSWER: blackbody [or blackbodies]

[10] This law states that the amount of radiant energy emitted by a perfect blackbody is proportional to the fourth power of the temperature measured in kelvins.

ANSWER: Stefan-Boltzmann law

[10] The namesake constant in the Stefan-Boltzmann law is often represented by this Greek letter. In math, its lowercase symbolizes standard deviation, and its uppercase indicates summation.

ANSWER: sigma

9. A poem set in this type of location begins, “The curfew tolls the knell of parting day.” FTPE:

[10] That poem set in one of these locations in the country was written by a poet who was part of a group of British poets nicknamed for writing melancholy poems often set in these places.

ANSWER: graveyard [or churchyard; or cemetery; or burial ground; or equivalents]

[10] The poem mentioned above is “Elegy Written in a Country Churchyard” by this English poet who also wrote about the drowning of a cat in a goldfish bowl.

ANSWER: Thomas Gray

[10] In the “Elegy,” the persona wonders if there might be buried some unknown poet he calls a “mute inglorious” version of this important English poet, author of “Lycidas.”

ANSWER: John Milton

10. Identify these figures from American folklore FTPE:

[10] The blue ox Babe accompanied this giant lumberjack who needed an army of cooks to make his pancakes.

ANSWER: Paul Bunyan

[10] This African-American “steel-drivin’ man” beat a steam drill cutting a tunnel but died from the effort.

ANSWER: John Henry

[10] This “king of the keelboat men” was an actual historical figure, but has been mythologized as an opponent of Davy Crockett who could drink a gallon of whiskey and shoot a squirrel at 100 feet.

ANSWER: Mike Fink

11. This ruler, who was the sponsor for the mathematician Euclid, acquired a name meaning “savior” after he established his namesake dynasty in Egypt. For 10 points each:

[10] Name this ruler who built the Library at Alexandria and is the possible half-brother of Alexander the Great.

ANSWER: Ptolemy I [or Ptolemy Soter; prompt on partial answer]

[10] This other ruler of the Ptolemaic dynasty was also the final ruler of Hellenic Egypt before it fell to Rome under Augustus Caesar. This ruler committed suicide after the battle of Actium by a snake bite.

ANSWER: Cleopatra VII Philopator

[10] This lover of Cleopatra was the losing general at the naval battle of Actium. His suicide prompted Cleopatra’s suicide.

ANSWER: Mark Antony [or Marcus Antonius]

12. Answer the following about some "Beautiful Experiments in Chemistry" that are described in Philip Ball's book *Elegant Solutions*, for 10 points each.

[10] Neil Bartlett produced xenon hexa-fluoro-platinate, which was the first compound containing one of these inert elements. Krypton, argon, neon, and helium are other examples of them.

ANSWER: noble gases [or Group 18]

[10] Leo Paquette performed a total synthesis of the compound C₂₀H₂₀, which is named for this Platonic solid. It has a total of 12 faces, each of which is a regular pentagon.

ANSWER: dodecahedron

[10] Jan Baptist van Helmont performed an experiment with this type of tree that showed plants do NOT grow by eating soil. Its bark, which contains salicin, can be used for pain relief.

ANSWER: willow tree

13. This instrument was played by the jazz greats Thelonious Monk and Dave Brubeck. FTPE:

[10] Name this keyboard instrument produced by companies such as Bosendorfer and Steinway.

ANSWER: piano

[10] Dave Brubeck played the piano on the 1959 album *Time Out*, which includes this jazz standard composed by Paul Desmond that is named for a musician's short break.

ANSWER: “Take Five”

[10] Another song from *Time Out* is “Blue Rondo a la Turk,” which has this time signature. The opening flute solo from *Prelude to the Afternoon of a Faun* also has this unusual time signature.

ANSWER: 9/8

14. Georg Brandes [BRAHN-des], who first named the “Modern Breakthrough” of Scandinavian literature, was a theorist from this country. FTPE:

[10] What nation’s writers Henrik Pontoppidan [pon-TOP-ih-dahn] and Karl Gjellerup [GEL-uh-roop] shared the 1917 Nobel in literature?

ANSWER: Denmark

[10] A much better known Danish writer is this author of fairy tales like “The Little Mermaid” and “The Princess and the Pea.”

ANSWER: Hans Christian Andersen

[10] In a story prefiguring current Republican economic policies for the poor, the title figure of this Andersen fairy tale freezes to death after running out of the items she sells to use for warmth, but it’s okay because she’s happy in heaven afterward!

ANSWER: The Little Match Girl”

15. One of the major reasons this war took place was the Israeli occupation of the Sinai Peninsula. FTPE:

[10] Identify this conflict named after the Jewish Day of Atonement.

ANSWER: Yom Kippur War

[10] This man followed Gamal Abdel Nasser as leader of Egypt and was the aggressor during the Yom Kippur War.

ANSWER: Anwar Sadat

[10] A couple years before becoming President of Egypt, Nasser led this movement, which toppled the monarchy in a 1952 coup.

ANSWER: Free Officers

16. Followers of this religion in India are known as Parsees. FTPE:

[10] Followers of what religion revere Ahura-Mazda?

ANSWER: Zoroastrianism

[10] Zoroastrianism originated in what is now this modern country, where it is still practiced in small pockets, especially in the northeast.

ANSWER: Iran

[10] The Zoroastrian text the Avesta includes the long section called the Yasna, which comprises these songs said to have been composed by Zoroaster himself.

ANSWER: Gathas

17. Juan Rulfo set his novel *Pedro Paramo* in a fictionalized version of the real city of Comala in this country. FTPE:

[10] Rulfo was an author from this country, as was the author of *The Old Gringo*, a novel which suggests that Ambrose Bierce died in this country.

ANSWER: Mexico

[10] The author of *The Old Gringo* referenced above was this writer of *The Death of Artemio Cruz*.

ANSWER: Carlos Fuentes

[10] Some weirdos suggest Ambrose Bierce actually was the author B. Traven, who is best known for this novel, which spawned a Humphrey Bogart movie famous for the line “We don’t need no stinking badges!”

ANSWER: *The Treasure of the Sierra Madre*

18. The second of these wars, which began in 1856 after a cargo ship called the *Arrow* was seized, included the destruction of the Yuanmingyuan, or Garden of Perfect Brightness. FTPE:

[10] Name these two wars that were named for a drug and fought between Britain and China.

ANSWER: Opium Wars

[10] This man, an advocate of gunboat diplomacy, served as British Prime Minister during most of the Second Opium War as well as the American Civil War.

ANSWER: Lord Palmerston [or Henry John Temple, 3rd Viscount Palmerston]

[10] The Opium Wars took place during this Chinese dynasty, the last Chinese royal house.

ANSWER: Qing or Ching

19. This scientist performed a dissection of the Hottentot Venus, who had enormous buttocks. FTPE:

[10] Name this proponent of catastrophism who founded the science of comparative anatomy.

ANSWER: Georges Cuvier

[10] Cuvier provided a name meaning "winged finger" for these flying reptiles from the Jurassic.

ANSWER: pterodactyls

[10] Cuvier used only a lithograph of a skeleton to identify a member of the genus *Megatherium* as one of the now-extinct ground type of these animals. Some of the much smaller tree type of these animals enjoy hanging upside down, have three toes on each foot, and are very slow.

ANSWER: sloths

20. Identify the following North American rivers FTPE:

[10] This river separates the United States from the Mexican states of Chihuahua and Nuevo Leon.

ANSWER: Rio Grande

[10] This river meanders nearly 80 miles before meeting the Atlantic in the city of Boston.

ANSWER: Charles River

[10] This second-longest river of North America flows from the Great Slave Lake north to the Beaufort Sea.

ANSWER: Mackenzie River