

Delta Burke 2015  
Round 8

1. A short story by this author sees the modernizing couple Michael and Nancy elect to close off a footpath used by what they see as backward villagers to commune with ancestral spirits; when a woman dies in childbirth, villagers destroy much of Michael's school in this author's story "Dead Man's Path." This author wrote of villagers who turn against the tribal priest Ezeulu when he won't call for the Yam Harvest in the novel *Arrow of God*. This author's best-known character hangs himself after returning to Umuofia from exile for his accidental killing of Ezeudu's son. FTP what Nigerian writer created Okonkwo in the novel *Things Fall Apart*?

ANSWER: Chinua Achebe

2. Canadian artist Brian Jorgen created a large red one of these objects from second-hand textiles. The top right portion of Childe Hassam's painting *The Avenue in the Rain* contains several of these objects. Gilbert Baker created one of these objects with eight different colors, including hot pink, although most modern versions only possess six different colors. One work by Jasper Johns is a white one of these objects, and in another Johns work, three of these objects that are on top of each other include the colors red, white, and blue. For 10 points, name these symbolic objects, one of which is proudly held by the central figure in Eugene Delacroix's *Liberty Leading the People*.

ANSWER: flags [accept specific examples]

3. Ken Perlin, who names a type of this phenomenon useful in computer graphics, also developed its simplex type. For an image, the reduction of this phenomenon can be achieved by Gaussian smoothing. A type of this phenomenon that occurs in resistors is caused by the random thermal motion of electrons, and is called the Johnson-Nyquist type. Although this phenomenon is defined as a disturbance in a system that interferes with the reception of information, the white type can be used to mask unwanted sounds. For 10 points, name this phenomenon that is paired with "The Signal" in the title of a Nate Silver book about predictions.

ANSWER: noise

4. The post-structuralist thinker Jacques Lacan [*luh-KHAN*] stated that this structure comprises the discourse of the other and is itself structured like a language. Freud argued that our enjoyment of jokes comes partly from repressed ideas in a book relating jokes to this structure. Carl Jung [*YOONG*] believed in two layers to this structure, one personal and the other populated by universal concepts like the "hero" and the "quest." FTP what is this origination point of automatic mental processes of which people are not aware, and of which Carl Jung posited a "collective" type?

ANSWER: unconscious

5. This man was raised by a woman named Lanike [*lah-NEE-kay*], who was the sister of a future general of this man named Cleitus [*KLI-tus*] the Black. One uprising against this man was led by Spitamenes. An army led by this man and his father defeated a coalition army of many of the Greek city-states at the battle of Chaeronea [*ker-uh-NEE-uh*]. This man's father, Phillip II, allegedly stated, "My boy, you must find a kingdom big enough for your ambitions" after this man tamed the horse Bucephalus. For 10 points, name this king of Macedon who won the 333 BC Battle of Issus and also named multiple cities after himself, including the Egyptian seaport of Alexandria.

ANSWER: Alexander the Great [accept Alexander III of Macedon]

6. The soldier Liutov performs this action in an effort to prove his toughness to a group of Cossacks in an Isaac Babel story. Konstantin does this in order to provide a gift to impress Nina in a play by Chekhov, but Nina is disgusted by it. One of these actions eventually leads its perpetrator to come across a becalmed ship on which Death and Life-in-Death play dice for the souls of his fellow crewmen. That character describes this action to a wedding guest he waylays. FTP the Ancient Mariner performs what action, also done by the protagonist of “My First Goose” and *The Seagull*?

ANSWER: killing a bird (accept “goose” after first sentence and anti-prompt (say “more general” after that if they answer with “seagull” or “albatross”))

7. Voltaire, in his work *Philosophical Letters*, contrasted English and French philosophical views by contrasting Newton and this thinker. This man argued that  $2+3=5$  is a true proposition whether one is dreaming or awake, and thus has a different value from sense information. To consider the latter, he proposed a hard piece of wax which has different sense properties after being placed near a flame. In the same work he discussed the possibility that he was being deceived by a demon in order to place himself in hyperbolic doubt. FTP what thinker in his *Meditations on First Philosophy* decided the only thing he could truly know is his own existence, which he phrased Cogito ergo sum?

ANSWER: Rene Descartes

8. Pressure on a cylindrical column containing these substances can cause the sausage instability. The experiment ALICE at CERN is studying one of these substances composed of free quarks and gluons. The electron temperature of these substances can be determined using a Langmuir probe. These substances circulate in a torus-shaped chamber and are confined by a magnetic field in a tokamak. St. Elmo's fire is one of these substances, which are usually found at very high temperatures. For 10 points, name these ionized gases that are called the fourth state of matter.

ANSWER: plasmas

9. The authority created by this document was superseded by the Peirce Patent, as this document was only meant to be temporary. It was necessitated by the signatories northward turn outside the boundaries granted to the Virginia Company by the Council of New England. Now lost, its text is known because of a hand-written copy included in a book published by William Bradford, who was a signatory to this document. *Of Plymouth Plantation* includes the text of, FTP, what 1620 text, the first governing document of the Plymouth Colony, signed by pilgrims on the namesake ship before landing.

ANSWER: Mayflower Compact

10. In one statement in the Hadith, Abu Huraira tells Muslims this non-Muhammad figure will slay the pigs and abolish the jizya tax on non-Muslims. Muhammad described an evil entity pretending to be this religious figure as being blind in his right eye and having a red complexion. The Quran describes this figure as one of three who was able to speak from the cradle, which he did in front of Zachariah and others in the Temple as his first miracle. FTP name this prophet whom Muslims believe ascended directly into heaven, with Allah creating a look-alike to be crucified in his place.

ANSWER: Jesus or Isa Ibn Maryam

11. This country banned the young-adult novel *Into the River* by Ted Dawes because of its offensive language and sexual descriptions. The taniko weaving patterns as well as the mythological figures Rangī and Papa were part of the inspiration for an option in an upcoming referendum in this country. Other options include a flag with a koru and several with a silver fern, one of which might replace this country's current flag, which includes the stars of the Southern Cross and has a Union Jack as its canton. John Key is the prime minister of this country, which was originally inhabited by the Maori people. For 10 points, name this country located southeast of Australia.

ANSWER: New Zealand [or Aotearoa from any Maoris]

12. This man used flaming camels to defeat an Indian army with elephants during the conquest of Delhi. This man was treated as a subject by the Yongle Emperor, causing this man to form an alliance with the Northern Yuan dynasty. This man referred to King Henry III of Castile as his very own son, as this man and King Henry had many years of positive diplomatic contact. At the sieges of Aleppo and Damascus, the only people spared by this man were artisans, who were sent back to the city of Samarkand. Early in life, after being shot by a shepherd for trying to steal a sheep, this man became crippled. For 10 points, name this figure from the late 1300s who claimed descent from Genghis Khan and walked with a limp.

ANSWER: Timur the Lame (or Tamerlane or Timur Lenk)

13. This poet wrote of "a singer everyone has heard" in "The Oven Bird." Another of his poem's speakers notes his desire to "unite/[his] avocation and [his] vocation/As two eyes make one in sight" after refusing an offer by hoboes to chop wood for him. This author of "Two Tramps in Mud Time" began one poem "The land was ours before we were the land's"; he read that poem from memory at JFK's inauguration. FTP name this author of "The Gift Outright" who wrote of a path that "diverged in a yellow wood" in "The Road Not Taken."

ANSWER: Robert Frost

14. The rhythms of this dance are used to depict the "Dies Irae" in the final movement of Michael Daugherty's *Metropolis Symphony*, which is named for a "red cape." Seinajoki, Finland hosts an annual festival dedicated to this dance. In the 1921 movie *The Four Horsemen of the Apocalypse*, the character Rex Ingram, played by Rudolph Valentino, performed this dance. The music for this dance is played by an ensemble with bandoneons. The lyrics "Pop! Squish! Six!" begin a song named for this dance from the musical *Chicago* that occurs in a "cell block." For 10 points, name this dance popular in Argentina that "it takes two to" perform.

ANSWER: tangos

15. One of these reactions that uses the compound BINAP is named for Noyori and results in asymmetric products. One example of this type of reaction is the conversion of oleic acid to stearic acid. Reactions of this type can be performed with Raney nickel and Lindlar's catalyst. General examples of these reactions include the conversion of carbon-carbon triple bonds to double bonds, and the conversion of an unsaturated fatty acid to a saturated one. For 10 points, name these reactions in which the element with atomic number one is added to multiple bonds.

ANSWER: hydrogenations [accept forms; prompt on "reduction" or "saturation" or "addition"]

16. Robert Bateman names an art gallery in this province, which is home to the *Girl in a Wetsuit* sculpture. Butchart Gardens on the Saanich Peninsula is located near this province's capital. Stanley Park is located in this province, which is the alleged home of the Ogopogo lake monster. Many invertebrate fossils have been found in Burgess Shale in this province. The second-largest Chinatown in North America is located in this province, which is bordered by Alberta to the east. For 10 points, name this province whose capital of Victoria is located on Vancouver Island.

ANSWER: British Columbia [or BC]

17. In this year, around 125,000 Cubans came to the US in the Mariel boatlift. John B. Anderson ran as an Independent in this year's presidential election, which included a debate in which a candidate asked, "Are you better off now than you were four years ago?" In this year, the Canadian Caper occurred, in which six American diplomats escaped Iran using fake visas. Mount St. Helens erupted in this year, and Moscow hosted the Summer Olympics that the US boycotted. For 10 points, name this year in which Ronald Reagan defeated Jimmy Carter in the presidential election.

ANSWER: 1980

18. This hero's birth was facilitated by a magic ring which Dame Brusen gave to King Pelles; Pelles's daughter, Elaine, used the ring to enchant this hero's father into thinking he was sleeping with his mistress. Upon joining his father's company on adulthood, this figure was the first able to sit in the Siege Perilous, foreshadowing his greatest achievement, after which he meets Joseph of Arimathea and ascends to heaven. FTP what knight of the Round Table was the illegitimate son of Lancelot, whose purity allows him to obtain the Holy Grail.

ANSWER: Galahad

19. One title character created by this novelist gives up Gwendolen for Mirah after learning he's Jewish and deciding to help try to create a Jewish homeland in Palestine. *Daniel Deronda* was written by this novelist, who portrayed Savanarola's Bonfire of the Vanities in a novel about a title woman who learns to help others during the plague, *Romola*. This novelist created a title miser who raises Effie and loses his gold in *Silas Marner*. FTP what female novelist born Mary Ann Evans wrote those novels and *Middlemarch* under a male pseudonym?

ANSWER: George Eliot (accept Mary Ann Evans before mentioned)

20. EEG signals in this brain structure include large irregular activity and theta rhythm. The last stage of the trisynaptic circuit in this structure includes transmissions between areas of the cornu ammonis. Neural stem cells are located in a part of this structure called the dentate gyrus. Terje Lomo discovered long-term potentiation and John O'Keefe discovered place cells in this structure, which is located in the inner region of the temporal lobe, and is part of the limbic system. Anterograde amnesia often involves atrophy of this structure, which is involved in spatial navigation and the storing of long-term memories. For 10 points, name this brain structure that resembles a seahorse.

ANSWER: hippocampus [or hippocampal formation]

Delta Burke 2015  
Round 8 Bonuses

1. The first title character of this opera sings about his misery in the aria "Vois ma misere, helas," and its second title character sings the seduction aria "Mon coeur s'ouvre a toi voix." FTPE:

[10] Name this opera with a bacchanale that is based on a section of The Book of Judges.

ANSWER: Samson and Delilah [or Samson et Dalila]

[10] *Samson and Delilah* was by this Frenchman, who also composed the tone poem *Danse Macabre* and the collection *The Carnival of the Animals*, whose movements depict a swan and tortoises, among others.

ANSWER: Camille Saint-Saens

[10] Saint-Saens's third symphony is often named for this keyboard instrument, which is commonly found in churches, and whose sound is produced using compressed air and pipes.

ANSWER: organ

2. Children must be at least seven years old and profess their belief in "real presence" before participating in this rite. FTPE:

[10] What is this rite in which Catholic children first accept the bread and wine that represent the body and blood of Christ?

ANSWER: First Communion

[10] Before taking First Communion, a child must take part in this action, formally known as the Sacrament of Reconciliation.

ANSWER: Confession or Penance

[10] Peter Lombard is reputed to be the first to call this final Catholic sacrament "Last Rites," which is a bit of misnomer, as it can be done more than once. It involves anointing a sick person to comfort them.

ANSWER: Extreme Unction

3. Name some things about people and places associated with the late republic period of Rome, for 10 points each.

[10] This man became entangled in Egyptian politics and fought the Battle of the Nile to support his lover Cleopatra. He got stabbed on March 15 or something.

ANSWER: Gaius Julius Caesar

[10] This region, which included Alesia, was invaded by Caesar in 58 B.C. People from this region were the cause of the first sack of Rome in 387 BC.

ANSWER: Gaul [or Gallia]

[10] This leader from Boris Nguyen's hometown attempted to unite the Gallic Tribes but lost power after failing to hold Alesia. He was brought to Rome, paraded through the streets, and strangled to death.

ANSWER: Vercingetorix

4. Unferth insults this person, who responds by mentioning his swimming contest with Breca. FTPE:

[10] Name this literary character who helps Hrothgar by killing the monster Grendel.

ANSWER: Beowulf

[10] *Beowulf* was written in this language, which was also used for the works in the Exeter Book.

ANSWER: Old English [prompt on "English"]

[10] A new verse translation of *Beowulf* was created in 2001 by this Irish poet, whose collection *Death of a Naturalist* contains the poems "Digging" and "Mid-Term Break."

ANSWER: Seamus Heaney

5. The essay *General Scholium* [SKOH-lee-uhm] that is appended to this work contains the dictum "Hypotheses non fingo," which is Latin for "I feign no hypotheses." For 10 points each:

[10] Name this 1687 work by Isaac Newton that contains his namesake three laws of motion.

ANSWER: *Philosophiae Naturalis Principia Mathematica*

[10] Newton was inspired to write the *Principia* after this man claimed to have derived Kepler's laws of planetary motion. A law named for this man is often written as  $F$  equals negative  $kx$ .

ANSWER: Robert Hooke

[10] This man paid for the *Principia* to be published. A comet named for this English astronomer can be seen with the naked eye when close to the Earth, and has an average period of 76 years.

ANSWER: Edmond Halley

6. This man was the referee for the 1896 boxing match between Fitzsimmons and Sharkey. FTPE:

[10] Name this Old West lawman who killed Frank Stilwell and was friends with Doc Holliday.

ANSWER: Wyatt Earp

[10] Wyatt Earp, his two brothers, and Doc Holliday participated in this brief 1881 event on the streets of Tombstone, Arizona, that killed Frank and Tom McLaury, along with Bill Clanton.

ANSWER: Gunfight at the O.K. Corral [or Shootout at the O.K. Corral]

[10] Wyatt Earp was also friends with this lawman, who eventually moved to New York City and became a sports reporter. Ed and Jim were the brothers of this man, who was nicknamed "Bat."

ANSWER: William Barclay "Bat" Masterson

7. This book's subject performed a hemi-spherectomy on "A Girl Named Maranda." FTPE:

[10] Name this book that also details the 1987 separation of Siamese twins joined at the head thanks in part to the special ability of the titular appendages.

ANSWER: *Gifted Hands*

[10] The book *Gifted Hands* is the story of this neurosurgeon, who is celebrated in the National Great Blacks in Wax Museum, and is running for President of the United States.

ANSWER: Ben Carson

[10] Ben Carson was once held at gunpoint at this fast-food chain, but courageously told the assailant, "I believe that you want the guy behind the counter."

ANSWER: Popeye's

8. This experiment was inspired by one of its two namesakes watching a slot machine. FTPE:

[10] Name this 1943 experiment that showed mutations in bacteria occur spontaneously.

ANSWER: Luria-Delbruck experiment [or fluctuation test]

[10] In the Luria-Delbruck experiment, the agar of petri dishes contained the T1 [*T-one*] example of these viruses that infect bacteria. Other examples of them include T4, Lambda, and Phi X 174.

ANSWER: phages [or bacteriophages]

[10] These bacteria were used in the Luria-Delbruck experiment. A strain of this organism called O157:H7 that produces Shiga toxins is sometimes found in undercooked ground beef.

ANSWER: E. coli [or Escherichia coli]

9. The Iki Archipelago's 23 islands belong to this country. For 10 points each

[10] What island nation is separated from Russia by the Sea of Okhotsk and from Korea by a namesake sea?

ANSWER: Japan or Nippon

[10] This island of Japan hosts cities such as Nagoya, Yokohama, and the capital, Tokyo.

ANSWER: Honshu

[10] Honshu and this island are connected by the Seikan Tunnel. This island was first settled by the Ainu and its capital is Sapporo.

ANSWER: Hokkaido

10. This author directed his friend Max Brod to burn his unfinished works after his death, but thankfully Brod didn't. FTPE:

[10] What Czech author depicted Gregor Samsa's unexplained awakening as a vermin in *The Metamorphosis*?

ANSWER: Franz Kafka

[10] Kafka presents interminable proceedings leading to the stabbing execution of this character with a surname given by only a single letter in *The Trial*.

ANSWER: Josef K. [both required; prompt on partial answer]

[10] The title character of this allegorical Kafka work is replaced by a panther after he starves himself to death in a cage for audiences.

ANSWER: "A Hunger Artist"

11. In a poem by Auden, this object is expected to include "Marble well-governed cities," but actually includes "A plain without a feature" and "No blade of grass, no sign of neighborhood." FTPE:

[10] Name this piece of armor that was made by Hephaestus and worn by the son of Thetis.

ANSWER: shield of Achilles [prompt on partial answer]

[10] Athena possessed this goat-skin shield, whose center included the head of Medusa.

ANSWER: aegis [*EE-jis*]

[10] The shield belonging to this son of Telamon was made from seven layers of ox-hide and had an external bronze plate. His shield was often used to protect his half-brother, the archer Teucer.

ANSWER: Ajax the Great [do NOT accept "Ajax the Lesser"]

12. A book about this subject focuses on the way that the exchange of objects between groups build relationships. For ten points each:

[10] Identify this type of item, exchanged during the Native American potlatch ceremony, which titles a Marcel Mauss book.

ANSWER: gifts

[10] This founder of American academic anthropology studied the practice of potlatch among the Kwakiutl [*kwah-kee-OOTL*], which led him to develop the concept of cultural relativism.

Answer: Franz Boas

[10] This Polish anthropologist examined the Trobriand islanders and discussed the kula ring in *Argonauts of the Western Pacific*.

Answer: Bronislaw Malinowski

13. After the failure of the presidency of Porfirio Diaz, this event saw the election of liberal president Francisco Madero, who was assassinated two years later by conservatives. FTPE:

[10] Name this period of upheaval that partially coincided with World War I and lasted from 1910-1920.

ANSWER: Mexican Revolution [or Revolucion Mexicana]

[10] This message saw the Germans ask for an alliance with the current Mexican government and promise to help the Mexicans recover their land that was lost after the Mexican-American War.

ANSWER: Zimmerman Telegram [or Zimmermann Note]

[10] Madero resigned and US Ambassador Henry Lane Wilson allowed Victoriano Huerta to seize power during this series of events that occurred in February of 1913.

ANSWER: Ten Tragic Days [or La Decena Tragica]

14. The azimuthal quantum number for this orbital equals zero. For 10 points each:

[10] Name this orbital that can hold less electrons than the  $p$ ,  $d$ , or  $f$  orbitals.

ANSWER: s orbital

[10] Unlike  $p$  orbitals, which are shaped like dumbbells,  $s$  orbitals are shaped like these objects.

ANSWER: spheres [accept reasonable equivalents, such as balls]

[10] Post-transition metals such as thallium have an oxidation state two less than their valency due to this effect, which is caused by the electrons in the outermost  $s$  orbital being difficult to ionize.

ANSWER: inert pair effect

15. For a while in the 1920s one philosopher figured he had solved all of philosophy's problems. FTPE:

[10] What German thinker wrote the brief and axiomatically organized treatise titled *Tractatus Logico-Philosophicus*, which famously ends, "Whereof one cannot speak, thereof one must be silent."

ANSWER: Ludwig Wittgenstein

[10] Wittgenstein's first proposition in the *Tractatus* is that this entity is "all that is the case," suggesting the breadth of his argument.

ANSWER: "The World"

[10] Wittgenstein used the idea of a beetle in a box to suggest the impossibility of a private form of this communication structure.

ANSWER: language

16. 9. This poem includes a refrain describing women who "come and go/Talking of Michelangelo."

FTPE:

[10] The speaker of what poem by T.S. Eliot wonders if he dares to "eat a peach" and apparently never asks a woman the question he had hoped to?

ANSWER: "The Love Song of J. Alfred Prufrock"

[10] At the poem's end, Prufrock notes that he has heard these female mythological creatures singing "each to each" but doesn't think they will sing to him.

ANSWER: mermaids

[10] Prufrock notes he was afraid when he saw this personification of death, which he describes as this type of attendant who might help one out of a carriage.

ANSWER: Eternal footman

17. Answer the following about the speed of sound, for 10 points each.

[10] The speed of sound in liquids and solids is inversely proportional to the square root of this quantity, which is symbolized by the lower case Greek letter rho, and equals mass over volume.

ANSWER: density

[10] Within 5%, give the speed of sound in meters per second in dry air at 20 degrees Celsius.

ANSWER: 343 m/s [accept any answers between 325-361 meters per second]

[10] The equation for the speed of sound in an ideal gas includes the adiabatic index, which has this numerical value for a diatomic gas, and is 5/3 for a monatomic gas.

ANSWER: 1.4 [or 7/5; accept other mathematical equivalents]



18. This Italian's painting titled *Nu couche* or *Reclining Nude* recently sold for \$170 million. FTPE:  
[10] What early 20<sup>th</sup> century painter is known for the elongated necks he gave many of his female subjects?

ANSWER: Amadeo Modigliani

[10] Parmigianino [*pahr-mi-juh-NEE-noh*] painted this traditional subject of Renaissance paintings with a long neck, holding an oddly elongated baby Jesus on her lap.

ANSWER: Madonna (accept "Mary")

[10] Parmigianino was a prominent exponent of this late Renaissance style known for its use of distortion and exaggeration in bodies and spaces.

ANSWER: Mannerism

19. John Updike's novel comprising the Reverend Tom Marshfield's journal entries is titled for a "month of" this day of the week. FTPE:

[10] A morning on what day of the week titles a Wallace Stevens poem in which a woman enjoys "late/Coffee and oranges in a sunny chair" rather than the "hush of ancient sacrifice"?

ANSWER: Sunday

[10] Stevens is slightly better known for a poem describing the "emperor of" this sweet treat.

ANSWER: ice cream

[10] Stevens wrote a poem about these lowly creatures at "heaven's gate," while Hamlet told Claudius how these creatures can eventually make a progress through a king.

ANSWER: worms

20. This man referred to Islam as "Mohammedism" in his opinion for *Wallace v. Jaffree*, which struck down a law that let teachers lead prayers and meditations in classrooms during school. FTPE:

[10] Name this Supreme Court justice who retired in 2010 and was replaced by Elena Kagan.

ANSWER: John Paul Stevens

[10] The establishment of religion in public schools violates this amendment to the US Constitution, which also covers freedom of speech and the right to peaceably assemble.

ANSWER: First Amendment

[10] The outcome of this 1962 Supreme Court case deemed state-authorized prayer at the start of each school day unconstitutional.

ANSWER: Engel v. Vitale [accept either or both names in any order]