

Valencia Delta Burke Invitational 2013
Round 10

1. In this year, three people were killed on the South Carolina State campus during the Orangeburg massacre. In this year, the speech "I've Been to the Mountaintop" was given during the Memphis sanitation strike. In this year, activists chanted "The whole world is watching" at a convention that occurred five months after Eugene McCarthy placed second in the New Hampshire primary. In this year, the USS *Pueblo* was captured by North Korea, and the Tet Offensive in South Vietnam occurred. In this year, Bobby Kennedy and Martin Luther King Jr. were both assassinated. For 10 points, name this year in which Richard Nixon was first elected President of the United States.

ANSWER: 1968

2. One novel set in this city features "äppärät"s that share data about characters like Eunice Park and Lenny Abramov. That novel is Gary Shtyenngart's *Super Sad True Love Story*. In another novel set here a key found in an envelope prompts a meeting at which William Black is told by Oskar Schell about a voicemail consisting of the repeated phrase "Are you there?" In another novel set here Keith Neudecker's estranged wife Lianne repeatedly sees the title street performer. For 10 points, name this setting of Jonathan Safran Foer's *Extremely Loud and Incredibly Close* and Don DeLillo's *Falling Man*, both of which center on responses to the 9/11 attacks.

ANSWER: New York City

3. In the bulb-to-bulb form of this process, an apparatus known as a kugelrohr is used. Before performing one type of this process, a McCabe–Thiele diagram may be drawn. The minimum number of equilibrium stages needed for another type of this process can be determined with the Fenske equation. Pieces of glass tubing known as Raschig rings are used in a Hempel column in a type of this process, which also may utilize a Vigreux column. Entrainers are added in order to separate azeotropes in this process, and gasoline is separated from petroleum using its "fractional" type. For 10 points, name this process that consists of boiling a liquid and condensing its vapor.

ANSWER: distillation

4. This painting was originally located together with *Pallas and the Centaur* in Lorenzo di Pierfrancesco's house. Possibly inspired by a Poliziano poem, this work includes a god who uses a caduceus to dissipate some clouds. On the right side of this painting, the god of the west wind chases a figure who turns into a goddess and scatters flowers. The three Graces are shown dancing in this painting. whose center depicts a clothed Venus standing in an orange grove. For 10 points, name this painting by Sandro Botticelli whose title is the Italian word for "spring."

ANSWER: Primavera [or Allegory of Spring]

5. George Kelly's 1990s cognitive theory of this concept views people as "scientists" developing hypotheses about their interactions in the world. Carl Rogers defined this as the "organized set of beliefs about oneself." One test for this concept involves showing people a picture of an ambiguous situations and asking them to tell a story about it; that is the Thematic Apperception Test. Another test of this concept includes a section in which males compare themselves to the Marlboro Man and women to June Cleaver; that is the MMPI or Minnesota Multiphasic Inventory of this concept. FTP what aspect of one's self is also studied by the Myers-Briggs Type Indicator?

ANSWER: personality

6. Isaac II Angelus made a pact to impede the progress of one member of this campaign, who would later sack Iconium, the capital of the Sultanate of Rum. After this campaign, Leopold V of Austria captured one of its leaders for taking down Leopold's standards following the Siege of Acre. This campaign began after Raynald of Chatillon's defeat at the Horns of Hattin. One leader of this campaign won the battle of Arsuf, but ultimately organized a peace that left Jerusalem under the control of Saladin. Frederick Barbarossa drowned during, FTP, what crusade led by Philip II and Richard the Lion-Hearted?

ANSWER: Third Crusade

7. Andrew Tanenbaum created a "mini" one of these that was widely used as a teaching tool. The game Space Travel inspired Ken Thompson to develop one of these that make use of "pipes." Multics greatly influenced one of these for which X-11 provides a graphical user interface. Fedora and Debian are distributions of one of these that was developed by Linus Torvalds and has a penguin as a mascot. Updates to another one of these were formerly named for types of big cats. For 10 points, name this type of software exemplified by Linux and Microsoft Windows.

ANSWER: operating systems [or OS; accept Unix on an early buzz; prompt on "kernel"]

8. Frederic Jameson reads this author's "will to style" as involving a mediation of capitalism and impressionist aesthetics in an essay that examines his novel about Martin Decoud and the title character hiding silver on Costaguana. Ian Watt theorized that he used "delayed decoding" to describe the explosion of the *Judea* in "Youth." Another essay about this author calls him a "bloody racist" in analyzing his novel about the meeting between Kurtz and Marlowe. Chinua Achebe's "An Image of Africa" criticizes, for 10 points, what author of *Heart of Darkness*?

ANSWER: Joseph Conrad

9. During the traditional New Year, shrines dedicated to them are rung 108 times to expel the 108 passions. The ones in charge of celestial bodies were born when the primordial male deity washed his face after an excursion to the underworld. A possible etymological root for this kind of being may come from the Ainu people, who designated them as entities living "above". Including Tsukiyomi and Susano'o, FTP, what is the name for the class of nature gods primarily worshipped in Shinto?

ANSWER: kami [prompt on descriptive answers, such as "Shinto gods"]

10. The main physical attractions of this national park were created as part of the Capitan Reef, limestone remnants of an inland sea that disappeared 250 million years ago. Location of sites like Chocolate High and Chocolate Drop, this park features the underground Lake Chandalar, home to extremophile microbes that feast on hydrogen sulfide in the underground lake. Located in the Guadalupe Mountains inside the Chihuahua Desert, most tourists visit its Hall of the White Giants and The Big Room, home to dozens of species of bats. FTP what New Mexico national park features an extensive cave system?

ANSWER: Carlsbad Caverns National Park

11. One author with this surname wrote the line “imponderable the dinosaur sinks slow” and described the “eastern Cape” as a “mammoth saurian ghoul.” He also described “the dice of drowned men’s bones” in “At Melville’s Tomb.” Another author with this surname wrote of a “creature, naked, bestial” who tells the speaker “I like it, because it is bitter, and because it is my heart.” That author wrote a novel in which the “tattered man” and Jim Conklin are encountered by Henry Fleming and he shares this surname with the author of *The Bridge*. For 10 points, name this surname shared by poet Hart and *Red Badge of Courage* author Stephen.

ANSWER: Crane

12. A scene in this film takes place in the Llanerch [LAN-ark] Diner, and the song "Always Alright" by Alabama Shakes appears on its soundtrack. Crabby snacks and homemades are enjoyed by characters in this film, which was based on a Matthew Quick book. One character in this film throws the book *A Farewell to Arms* out a window, becomes suspicious after noticing the phrase "reading the signs" in a letter, and likes to run while wearing a garbage bag. This film centers on a bipolar character whose dad loves the Philadelphia Eagles, and who agrees to enter a dance competition. For 10 points, name this film starring Bradley Cooper and Jennifer Lawrence.

ANSWER: Silver Linings Playbook

13. One work by this composer in the twelve-tone method uses only ten notes for the tone row and the other two notes for cadences. This composer of *Piano Fantasy* was commissioned by Benny Goodman to write a clarinet concerto. Another work by this composer that is scored for only brass and percussion begins with the ascending notes G C G played by trumpets. Martha Graham choreographed a work by this composer that includes the Shaker hymn "Simple Gifts" and centers on newlyweds in Pennsylvania who build a house. For 10 points, name this American composer of *Fanfare for the Common Man* and the ballet *Appalachian Spring*.

ANSWER: Aaron Copland

14. This president hurt his vice-president’s chances of winning the White House when he said he’d need a week to think of one major idea of the VP’s that had influenced policy. This president authorized the project in which Kermit Roosevelt engineered the coup that ousted Mohammed Mossadegh as Iranian prime minister in Operation Ajax. That project was organized by Allan Dulles, who was the brother of this president’s Secretary of State, John Foster Dulles. This president’s desire to replicate the efficiency of the Autobahn led to his greatest legacy. For 10 points, what president authorized the Interstate Highway System and served from 1953 to 1960?

ANSWER: Dwight D. Eisenhower

15. The interaction of dust and these particles results in Poynting–Robertson drag. A neutral pion decays into two of these particles, which are their own antiparticles. The increase in wavelength of these particles when they collide with electrons is the Compton effect. These particles result from electron-positron annihilation, and these bosons can also be created by stimulated emission. The energy of these particles equals the product of frequency and Planck's constant. For 10 points, name these particles that comprise light and other forms of electromagnetic radiation.

ANSWER: photons

16. The day before this holiday sees many people perform the Hatarat Nedarim. The unrelated Fast of Gedaliah typically occupies the day after this holiday. One practice on this holiday involves reciting a section of Micah and throwing bread into a body of water in the ritual known as tashlikh. The Avinu Malkeinu prayer is recited during the Ten Days of Repentance following this holiday. Apples and honey are typically eaten on this holiday, which is underscored by 100 blasts from the shofar. A two-day celebration beginning on the first day of Tishrei, FTP, name this Jewish holiday that commemorates the New Year.

ANSWER: Rosh Hashanah

17. One novel by an author from this country sees a private eye hitch a ride with a lady trucker to a coal mine in Liquorland to investigate claims of cannibalism. Another author from this nation created a character who signs a circle instead of his name to a confession and prides himself on petty spiritual victories. This home of the author of *The Republic of Wine* is also the setting of a novel in which the tourist “You” has a relationship with “She” then is revealed to be an alter ego of “I” while backpacking to Lingshan. For 10 points, name this home to Mo Yan, “The True Story of Ah Q” author Lu Xun, and *Soul Mountain* author Gao Xingjian.

ANSWER: People’s Republic of China

18. This thinker used the example of billiard balls striking each other to consider the sentence “A causes B,” concluding that the statement is neither analytic nor synthetic, an argument related to this thinker’s namesake problem of induction. This philosopher used the characters of Cleanthes, Demea, and Philo to consider various proofs of God’s existence in his *Dialogues Concerning Natural Religion*. His namesake “fork” distinguishes between relations of ideas and matters of fact. FTP what Scottish philosopher of the 18th century wrote *An Enquiry Concerning Human Understanding*?

ANSWER: David Hume

19. The receptors of this compound interact with the drugs sumatriptan [*soo-mah-TRIP-tahn*] and zolmitriptan. Carcinoid tumors release this compound, which is metabolized into 5-hydroxy-indole-acetic acid. This compound is structurally similar to tryptamine with a hydroxyl group at the five position. This compound is synthesized by neurons in the raphe [*REY-fee*] nuclei, but 90% of it is located in entero-chromaffin cells. For 10 points, name this neurotransmitter whose re-uptake is selectively inhibited by Zoloft, Prozac, and other anti-depressants known as SSRIs.

ANSWER: serotonin [accept 5-hydroxytryptamine or 5-HT before mentioned]

20. One leader of this country made every political faction except his AREMA party illegal, that man was the socialist Didier Ratsiraka. Queen Ranavalona I of this country’s Merina Dynasty persecuted Christians converted by the London Missionary Society on this island nation. During WWII, Britain launched Operation Ironclad to wrest control of this island nation from Vichy France, and Adolf Hitler green lighted a Nazi plan which proposed sending European Jews to this country. FTP, name this nation with capital Antananarivo, an island off the southeastern coast of Africa.

ANSWER: Madagascar

Delta Burke 2013
Round 10 Bonuses

1. The peasant Nemorino sings the aria "Una furtiva lagrima" to the wealthy Adina in an opera buffa by this Italian composer in which the title object is actually just cheap wine. For 10 points each:

[10] Name this operatic composer of *The Daughter of the Regiment* and *The Elixir of Love*.

ANSWER: Gaetano Donizetti

[10] Donizetti also composed this opera, which includes a "mad scene" where the title character kills her husband and hallucinates about her true love Edgardo while singing "Il dolce suono."

ANSWER: Lucia di Lammermoor

[10] The role of Lucia is scored for this female voice type, which is higher than alto. The title character in *The Daughter of the Regiment* is also scored for this highest female voice type.

ANSWER: soprano

2. One of his works is subtitled "How to Philosophize with a Hammer." FTPE:

[10] *Twilight of the Idols* includes the oft-quoted line "What does not kill me makes me stronger," written by what German thinker?

ANSWER: Friedrich Nietzsche

[10] Nietzsche's equally famous formulation, "God is dead," comes from this book, the title of which opposes philosophy to a famous designation given to economics by Thomas Carlyle.

ANSWER: *The* Gay Science

[10] Nietzsche's later works often use these pithy statements with kernels of wisdom.

ANSWER: aphorisms

3. One artifact from this culture is a sculpture of a seated man with clenched fists known as "The Wrestler." FTPE:

[10] Name this Mesoamerican civilization centered on the cities of La Venta and San Lorenzo whose name means "the rubber people."

ANSWER: Olmec

[10] The Olmec civilization is best known for their massive sculptures of this body part, likely portraying deceased rulers. The first was found by Matthew Stirling at Tres Zapotes in 1938.

ANSWER: heads

[10] The Olmec civilization is often credited with the introduction of this number to Mesoamerica, which the Mayans utilized as a placeholder in their Long Count Calendar.

ANSWER: zero

4. Porter Goss was the first man to hold this position, and Leon Panetta held this position immediately before becoming United States Secretary of Defense. For 10 points each:

[10] Name this top position at an agency whose headquarters are in Langley, Virginia.

ANSWER: Director of the CIA [or Director of (the) Central Intelligence (Agency)]

[10] This man resigned as Director of the CIA in 2012 after details of an extramarital affair emerged. This man had earlier succeeded Stanley McChrystal in 2010 as the commander of US forces in Afghanistan, and was labeled "General Betray Us" in 2007 in a MoveOn.org ad.

ANSWER: David Petraeus

[10] David Petraeus had an affair with this woman, the author of his biography entitled now-humorously titled *All In*.

ANSWER: Paula Broadwell

5. Equal to Boltzmann's constant times the natural log of the number of microstates, this state function always increases in an irreversible process, according to the 2nd law of thermodynamics. FTPE::

[10] Name this quantity with units of Joules per Kelvin that measures the disorder of a system.

ANSWER: entropy [prompt on "S"]

[10] This imaginary creature is able to separate fast-moving molecules from slow-moving ones without expending energy, thus decreasing entropy and violating the 2nd law of thermodynamics.

ANSWER: Maxwell's demon

[10] This author of the 1948 article "A Mathematical Theory of Communication" is the namesake of a type of entropy used in information theory. He also names a sampling theorem with Nyquist.

ANSWER: Claude Shannon

6. Claude McKay, author of *Banana Bottom*, is considered part of this group. FTPE:

[10] Jean Toomer was also part of what "flowering of Negro culture" of the 1920s in New York?

ANSWER: Harlem Renaissance

[10] The so-called "Negro National Anthem" was written by this Harlem Renaissance author of Autobiography of an Ex-Colored Man?

ANSWER: James Weldon Johnson

[10] This poet of "A Dream Deferred" and "The Weary Blues" is the best-known figure of the Harlem Renaissance.

ANSWER: Langston Hughes

7. When adherents of this ethical system die, their funerals are often led by Buddhist or Taoist monks. FTPE:

[10] What is this system which is partly informed by the works of Meng Tzu, as well as its namesake thinker?

ANSWER: Confucianism

[10] This collection of writings by Confucius, also known as the Lun Yu, provides many of the bases for Confucianism.

ANSWER: Analects

[10] A major tenet of Confucianism is this concept, which refers to one's requirement to be compassionate and humane.

ANSWER: Ren

8. This American's father was appointed Governor-General of the Philippines in 1900. FTPE:

[10] What general said "I shall return" to the Philippines when he was removed in 1942 and was the youngest to achieve the rank of Major General?

ANSWER: Douglas MacArthur

[10] US Marines under MacArthur helped UN Forces in the Battle of Inchon in this conflict, though MacArthur was removed from US command here in 1952.

ANSWER: Korean War

[10] MacArthur was replaced in Korea by this general.

ANSWER: Matthew Ridgway

9. Deoxy-ribo-nucleotides, the enzyme *Taq*, and reaction buffers are found in Master Mix, a solution used in this technique, which can be used to determine who's your daddy. For 10 points each:

[10] Name this biological laboratory technique used to rapidly amplify DNA templates.

ANSWER: PCR [or polymerase chain reaction]

[10] PCR was invented by this man, who somehow does not believe that HIV causes AIDS.

ANSWER: Kary Mullis

[10] PCR also requires divalent cations of this element, which is often found bound to ATP.

ANSWER: magnesium

10. Ben Jonson commemorated this type of event for its 60th iteration for William Sidney. FTPE:

[10] What kind of event's "Letters" title a book of poems written by the former husband of Sylvia Plath?

ANSWER: birthday

[10] This is the British poet of *Birthday Letters* who also wrote "The Hawk in the Rain" and "Crow."

ANSWER: Ted Hughes

[10] Plath seems to reference Hughes in this poem as "the vampire who . . . drank my blood for a year" while telling the title man that she's "through."

ANSWER: "Daddy"

11. The first section of this 1925 film is titled "Men and Maggots" and shows Vakulinchuk leading a mutiny. FTPE:

[10] What silent Russian film includes the famous sequence in which Tsarist soldiers shoot down citizens on the Odessa Steps?

ANSWER: *Battleship* Potemkin

[10] *Battleship Potemkin* was directed by this montage enthusiast who also directed *October*.

ANSWER: Sergei Eisenstein

[10] Eisenstein never finished the third film of a trilogy about this Russian tsar, who killed his own son in a rage.

ANSWER: Ivan the Terrible [or Ivan IV]

12. One example of these devices can be used to raise a water bucket from a well, and another example has a stationary point known as the fulcrum. For 10 points each:

[10] Identify this two-word term that refers to devices such as levers, pulleys, and screws.

ANSWER: simple machines

[10] This man once boasted, in reference to the lever, "Give me a place to stand and I shall move the world." This native of Syracuse allegedly exclaimed "Eureka" while naked in the streets after using the principle of buoyancy to determine a "gold" crown was actually alloyed with silver.

ANSWER: Archimedes

[10] This eponymous device consists of two masses connected by a massless inextensible cord passed over an ideal pulley. In the "swinging" version, one mass can rotate in the vertical plane.

ANSWER: Atwood's machine

13. This character's surname is never provided, though his first name is provided in the first line of the novel in which he appears. FTPE:

[10] What narrator of a big American novel is the only survivor of the destruction of the *Pequod* by the title cetacean, and asks you to call him by his first name in the novel's first line?

ANSWER: Ishmael

[10] Ishmael was created by this author of *Moby Dick*.

ANSWER: Herman Melville

[10] Ishmael's best friend in *Moby Dick* is this chief harpooner of the *Pequod*, whom he meets in port in New Bedford.

ANSWER: Queequeg

14. One city located on this sea is the namesake of some "Tales" written by Isaac Babel, and another city located on this sea will host the 2014 Winter Olympics. For 10 points each:

[10] Name this sea that the Dnieper [*NEE-per*], Dniester [*NEE-ster*], and Danube rivers flow into, and that is connected to the Sea of Marmara by the Bosphorus Strait.

ANSWER: Black Sea [or Euxine; or Axeinos]

[10] This shallow sea is connected to the Black Sea by the Kerch Strait.

ANSWER: Sea of Azov [or Maeotis; or Surozh]

[10] This twelve-hundred mile long river flows south from Tula into the Sea of Azov, and is linked to the Volga by a canal. This river appears in the title of many Mikhail Sholokhov novels.

ANSWER: Don River

15. The first person to accomplish this task twice was the Spaniard Martin Ignacio de Loyola. FTPE:

[10] Identify this feat also accomplished by Sir Francis Drake, who utilized the *Golden Hind* in completing this task.

ANSWER: naval circumnavigation (accept sailing around the world and equivalents)

[10] Juan Elcano led the eighteen survivors of the first circumnavigation, an expedition begun under this explorer who died in the Philippines after unwisely getting involved in local politics.

ANSWER: Ferdinand Magellan

[10] This man's circumnavigation featured a notable lack of scurvy outbreaks. Aboard the HMS *Endeavour*, this explorer was the first European to reach the Hawaiian Islands.

ANSWER: James Cook

16. Wilhelm Rontgen [*RENT-guhn*] was its first winner, and Francois Englert won in 2013. FTPE:

[10] Name this prize won twice by American scientist John Bardeen, the first time for semiconductor research, and the second time for developing a theory of superconductivity.

ANSWER: Nobel Prize in Physics

[10] Martin Karplus, winner of the 2013 Nobel Prize in Chemistry, names an equation that relates vicinal coupling constants to dihedral angles in this technique with proton and carbon-13 types.

ANSWER: NMR spectroscopy [or nuclear magnetic resonance spectroscopy]

[10] Rothman, Schekman, and Sudhof won a Nobel Prize in 2013 for discovering the machinery that regulates these membrane-bound packages, which are used to transport cellular cargo. SNARE proteins mediate the fusion of these sacs, which are sometimes coated with clathrin.

ANSWER: vesicles

17. A woman named Phaia raised one of these animals which ravaged the region of Crommyon. FTPE:
[10] The Eleusinian Mysteries began with the sacrifice of these animals; the hunt for the Erymanthian one included Heracles and Atalanta.

ANSWER: pigs or boars (I know they're different, but close enough for myth)

[10] Gwyndion steals Pryderi's pigs in an episode related from this country's mythology, as related in the *Mabinogion*.

ANSWER: Wales (accept Welsh)

[10] Odysseus's crewmen were turned into pigs by this sorceress on the island of Aeaea [*ee-EE-uh*].

ANSWER: Circe

18. After a misreading of this play in a classroom in Kundera's novel *The Book of Laughter and Forgetting*, two American girls studying in Czechoslovakia mysteriously begin to elevate along with their teacher. FTPE:

[10] What play by Eugene Ionesco depicts conformity by having its characters turn into the large, one-horned title beasts?

ANSWER: Rhinoceros

[10] This protagonist of *Rhinoceros* is the only one to resist transformation.

ANSWER: Berenger

[10] This Ionesco play has been in permanent production since 1957 at a Paris theater; it features the Smiths hosting the Martins along with Mary and the Fire Chief and a lot of crazy talk.

ANSWER: *The Bald Soprano*

19. Militants fighting under this man pulled 17 Americans off of a mining train in 1916, killing them and mutilating their bodies. FTPE:

[10] What outlaw Mexican general called for this attack as well as for an attack on civilians in Columbus, New Mexico?

ANSWER: Francisco "Pancho" Villa

[10] In response to Villa's attack, 5,000 US troops led by this general, who was nicknamed "Black Jack," unsuccessfully tried to capture Villa in Mexico.

ANSWER: John Pershing

[10] Villa had been celebrated by Americans after his support of the occupation of this Mexican city on the Gulf of Mexico after the Tampico Affair.

ANSWER: Veracruz

20. This anthropologist studied the chest-pounding duels used to settle grievances among a group of indigenous people whose word for menstruation translates literally as "squatting." FTPE:

[10] Name this man who used the subtitle "The Fierce People" in a book about the Yanomami.

ANSWER: Napoleon Chagnon

[10] Yanomami indigenous people live along the Amazon River, where Chagnon studied them mostly on the tributary Maravaca in this country, also home to Angel Falls.

ANSWER: Venezuela

[10] Patrick Tierney accused Chagnon of starting a measles epidemic that killed 20% of the Yanomami in a book entitled *Darkness in* this legendary city of treasure.

ANSWER: El Dorado