

## Minnesota Undergraduate Tournament 2013

Questions by Rob Carson, Mike Cheyne, Andrew Hart, Gaurav Kandlikar, Matt Menard, and Bernadette Spencer

### Round 12: This is Where the Fish Lives

#### Tossups

1. On this continent, the excavation of a gravesite led to the discovery of a man buried with 20,000 shell beads arranged in the shape of a falcon. The game of Chunkey was played on this continent by a civilization that inhabited the site now known as the Monks Mound. This continent was the site of a competition between Edward Drinker Cope and Othniel Charles Marsh called the Bone Wars. This continent, which contains a fossil-rich area called the La (\*) Brea Tar Pits, also contains one of the largest deposits of soft-tissue fossils, the Burgess Shale. This home of the Cahokia Mounds contains a giant strike-slip fault at the Pacific Plate and the world's deepest canyon. For 10 points, name this continent, which was the home to the Anasazi and contains the Canadian Rockies and the San Andreas Fault.

ANSWER: North America [do not accept or prompt on "America"]

2. One participant in this event claimed that the presence of Roger Mahony would be "troubling". Prior to this event, an impostor with a purple scarf tied around his waist who called himself "Basilius" attempted to attend a secret meeting. A Scottish participant resigned before this event could begin due to conduct that "fell below [his position's] standards". This event was necessitated after an announcement made on the World Day of the Sick. Those who were seen as (\*) front-runners at this event included Odilo Scherer, Peter Turkson, and Marc Ouellet. This event lasted from March 12 until the evening of March 13, when white smoke emerged from the chimney of the Sistine Chapel. For 10 points, name this meeting that selected Jorge Maria Bergoglio to succeed Benedict XVI as Francis I.

ANSWER: 2013 papal conclave [accept anything that indicates most recent papal conclave or most recent papal election or anything else indicating the meeting where they recently chose a new pope; prompt on anything more general such as papal election or conclave]

3. One structure near this object is divided into regions named Fraternité, Égalité and Liberté, and the Lassell and La Verrier rings form around this body. This planet's moon Neso has the longest semi-major axis of any natural satellite. One of this planet's satellites is the site of the Andvari crater. An object named for John Couch Adams on this planet is shepherded by its moon (\*) Galatea. One of this object's satellites has large regions of "cantaloupe terrain" and is the only large moon with a retrograde orbit. This planet experiences anti-cyclone storms around its "great dark spot". For 10 points, name this planet orbited by Triton, the furthest planet from the Sun.

ANSWER: Neptune

4. According to one story, this man fathered Illyrius after leading the Enchelean army to victory over the Illyrians. He married one of his daughters to Echion, a member of a group of early allies of this man that also included Pelorus, Udaeus, Hyperenor, and Chthonius. He was the first person to mine near mount Pangaeon in Thrace, where he buried his mother Telephassa, and he also introduced the alphabet to the Greeks. Like his brothers Thasus, Cilix, and (\*) Phoenix, he was sent on an expedition out of Phoenicia by his father Agenor. While on that quest, the Delphic Oracle told him to follow a cow which took him to a location near the Ismenian spring, at which he killed a dragon whose teeth he then sowed. Zeus gave Harmonia in marriage to, for 10 points, which hero, whose search for his sister Europa led him to found Thebes?

ANSWER: Cadmus [or Kadmos]

5. One man to hold this Cabinet position under Martin Van Buren was the namesake of the poinsettia flower, Joel Poinsett. Senator Hiester Clymer's investigation forced one man to resign this position. One man to hold it was judged by Thaddeus Stevens to be so corrupt he

would steal a red hot stove. That man was Simon Cameron. Under Andrew Jackson, this post was held by the man married to the controversial (\*) Peggy Eaton. Andrew Johnson's attempt to appoint Lorenzo Thomas to this position resulted in his impeachment. The first man to hold this post previously transported cannons from Fort Ticonderoga to Boston. Held by Edwin Stanton under Abraham Lincoln, it was first held by Henry Knox. For 10 points, name this now defunct Cabinet position, effectively replaced by the Secretary of Defense.

ANSWER: Secretary of War [do not accept "Secretary of Defense"]

6. One novel by this author, which was inspired by reading another author's *The Takes of Belkin*, has the epigraph "Vengeance is mine: I will repay." In another novel, this author wrote of a man who leaves his pregnant wife Lise, the "Little Princess," at the estate of Bleak Hills to join the war effort. This author created a man who breaks the back of the horse Frou Frou in a steeplechase accident, visibly concerning that man's mistress. He created Prince (\*) Andrey Bolkonsky in a novel in which the protagonist fights in the Battle of Borodino. Another of his protagonists loves Count Vronsky and throws herself in front of a train. For 10 points, name this author of *Anna Karenina* and *War and Peace*.

ANSWER: Leo Tolstoy [or Count Lev Nikolayovich Tolstoy]

7. When it interacts with ryanodine receptors, this element upregulates its own release, and this compound forms the cell plates of coccolithophores. Stimulation of Gq ("g-sub-q") opens a channel that allows for this ion's movement, and proteins that bind this ion have an EF hand motif. Cellular concentrations of this ion are regulated by IP3. Parafollicular cells of the (\*) thyroid produce a compound that reduces the concentration of this ion in blood, and its intestinal absorption requires vitamin D. This ion interacts with Troponin to stimulate muscle contraction, and the lumens of sarcoplasmic reticula have high concentrations of this ion. For 10 points, name this divalent cation that is stored in bones.

ANSWER: calcium

8. A ruler from this house was known as John the Posthumous because he reigned for only five days as an infant, and another king known as the "Headstrong" died after a particularly exhausting tennis game. A king from this house ordered the execution of the Knights Templar leader Jacques de Molay. One ruler from it was captured by the Egyptians during the Seventh Crusade, while a later ruler from it defeated the English at the Battle of (\*) Bouvines and was named Philip Augustus. This house included a son of Blanche of Castile known as "Saint Louis." It broke down after Philip IV's sons failed to produce heirs, with the throne passed to the House of Valois. For 10 points, name this French royal house which succeeded the Carolingians and which takes its name from its first king, Hugh.

ANSWER: House of Capet [or Capetian]

9. In one version of this painting, a shiny shield and helmet are piled up alongside some books, a sword, and a lyre, and behind a recumbent woman in a blue dress in the bottom right. It began as an illustration for Florent Dancourt's play *The Three Cousins*. The aforementioned Charlottenburg Palace version shows a number of putti climbing a large pole on the left side, while both major versions of this painting include a pair of figures holding long wooden poles behind a (\*) dog capering about in the lower middle. The more famous Louvre version features a garland-wrapped statue of a goddess on the right side, behind the line of people moving towards a golden boat. For 10 points, identify this *fête galante* painting in which a bunch of lovers prepare to either travel to or leave a Greek island, painted by Jean-Antoine Watteau.

ANSWER: Embarkation to Cythera [or L'Embarquement pour Cythère; accept anything that indicates voyaging or making a pilgrimage or traveling either to or from Cythera, or even anything involving hanging out on Cythera]

10. One play by this man opens with a 45-line monologue by a nurse, who observes two children and their tutor. In one play by this author, a character appears bearing a flaming torch in each

hand and dances a prayer to Hymen before being led away by the herald Talthybius. One play by this author reaches its climax when Heracles wrestles Thanatos. In another play by this author, the title character gives (\*) Glauce a poisoned robe and kills her own children. He also wrote a play about Helen, Andromache, Cassandra, and Hecuba. For 10 points, name this Greek tragedian often criticized for his use of deus ex machina, who wrote *Alcestis*, *Medea*, and *The Trojan Women*.  
ANSWER: Euripides

11. After this man was passed over for Thomas Inskip for one position, it was compared to a horse being appointed a consul. He was blamed for sending in troops during the coal mining dispute known as the Tonypandy Riots. This man wrote a history that began with the volume *The Gathering Storm* and was the subject of a Keynes essay criticizing his return to the gold standard. He sent in troops to put down the (\*) Mau Mau Rebellion. This man also penned *A History of the English-Speaking Peoples*. In one speech, he promised he had “nothing to offer but blood, toil, tears, and sweat,” while in a later speech he vowed “we shall fight on the beaches” and “never surrender.” For 10 points, name this man who succeeded Neville Chamberlain as Prime Minister of Britain during World War II.  
ANSWER: Sir Winston Leonard Spencer Churchill

12. An architecture firm based in this country that designed one of its major landmarks also built Paris’s Tour Total and Philadelphia’s Blue Cross Tower. This home of WZMH Architects was also the home of an Armenian-born artist known for separately lighting his subjects’ hands and for photographing a glowering Winston Churchill for *Life* magazine. Another building in this country was initially modeled in Lego and consists of many chaotically-arranged prefabricated concrete apartment units. That “Habitat” was designed by Moshe Safdie for (\*) Expo 67, which took place in this country. An architect born in this country recently completed New York’s 8 Spruce Street tower and also designed the Dancing House in Prague and the Guggenheim Museum Bilbao. For 10 points, identify this birthplace of Frank Gehry, a country home to the CN Tower and a photographer known as “Karsh of Ottawa”.  
ANSWER: Canada [or The Dominion of Canada]

13. This man attempted to bridge the gap between belief and knowledge in a book that claimed since epistemology relied on sense-data, it was a scientific discipline. Another work by this philosopher claims that the best scientific principles provide the best explanations for experience. This man advocated ontological relativity in a book that uses the gibberish word “gavagai” to illustrate the indeterminacy of (\*) translation. This author of *Epistemology Naturalized* rejected Carnap’s attempts to derive a common language in one essay. That essay by this man uses the terms “an unmarried man” and “bachelor” to demonstrate the futility of reductionism and refutes the analytic/synthetic distinction of logical positivism. For 10 points, name this American philosopher who wrote “Two Dogmas of Empiricism”.  
ANSWER: W.V.O. Quine [or Williard Van Orman Quine; accept Van from proven “intimates”, but never, ever accept “William Van Orman Quince”]

14. In Stella Gibbons’s *Cold Comfort Farm*, Mr. Mybug vacillates between *Scapegoat* and *Pard-spirit* for the title of a study of one author with this surname. Another author with this surname was deeply attached to the married Constantin Héger, a fact suppressed in the biography of that author by Elizabeth Gaskell. A novel by an author with this surname is framed as a series of letters sent to Jack Halford by the protagonist, who falls in love with Arthur Huntington’s wife Helen Graham, the title character. Another author with this surname wrote a novel whose protagonist is locked in the (\*) “red room” before attending the Lowood School. Later in that novel, Thornfield Hall is burned down by Bertha Mason and the protagonist marries Mr. Rochester. For 10 points, identify this surname that the authors of *The Tenant of Wildfell Hall* and *Jane Eyre*, Anne and Charlotte, shared with their sister Emily.  
ANSWER: Brontë [prompt on Bell; accept “Branwell”, “Anne”, “Charlotte”, or “Emily” before “Bronte”]

15. **Two instruments that conduct this technique are separated by collision cells, and analytes of this technique are separated by quadrupole filters. Radical cations of the samples are generated prior to being subjected to this technique. The intensities of peaks in this technique's readouts are reported as proportions of the base (\*) peak.** Instruments to conduct this technique are often attached to upstream gas chromatographs. The presence of an "M+2" peak which is a third as high as the "M+" peak on this technique's spectrum indicates the presence of chlorine, because chlorine 37 is less abundant than chlorine 35. For 10 points, name this technique in which is used to determine molecular weights.

ANSWER: mass spectrometry [accept MS]

16. **The writer of this song was inspired by poems in the book *Grapefruit*. In its music video, two people enter a house where a sign reads "This Is Not Here." That video is part of a larger film featuring the performer saying he's just a "guy who writes songs" to a homeless person. In *Forrest Gump*, the creator of this song is inspired by listening to Forrest talk about his trip to (\*) China. This song's music video ends in an all-white room where the singer plays the piano while sitting next to his wife. Cee Lo Green was criticized for changing one lyric to "and all religion's true." A later lyric is "you may say I'm a dreamer, but I'm not the only one." For 10 points, name this John Lennon song which asks us to conceive of no heaven and no countries.**

ANSWER: "Imagine"

17. **This composer's first cello concerto, which was memorized and premiered by Rostropovich after only four days, contains themes based on this composer's score to *The Young Guard* and his DSCH motif. The book *Testimony* contains the alleged memoirs of this composer, who used Franz Lehar's song "You'll Find Me at Maxim's" in one theme. After withdrawing his fourth symphony, this composer premiered a more conservative fifth symphony that he dubbed "An artist's (\*) creative response to justified criticism." This composer wrote symphonies nicknamed *The Year 1905*, *The Year 1917*, and *Babi-Yar*. For 10 points, name this Russian composer whose Seventh Symphony contains the "invasion" theme and is nicknamed for the siege of Leningrad.**

ANSWER: Dmitri [Dmitriyevich] Shostakovich

18. **One ruler of this empire fired arrows at passerby from his palace for sport and was named Kalifa. Its original territories were called "the Twelve Doors," including Siby and Tabon. This empire began to crumble after losing the Battle of Jenne to Governor Sayyid Mansur's forces. It had a constitution called the Kurukan Fuga that divided this empire into clans. This empire's founder was the son of a (\*) hunchbacked woman known as "the daughter of the buffalo woman." That founder defeated the Sosso monarch Sumanguru at the Battle of Kirina. This empire founded the University of Sankore. Founded by Sundiata, it had a later ruler who took 300 pounds of gold with him on a 1324 pilgrimage to Mecca. For 10 points, name this West African empire once ruled by Mansa Musa.**

ANSWER: Mali Empire [or Mandingo Empire]

19. **One of this author's novels contains a cover letter apologizing for not delivering *The Seeker* and an extended parody of *Oedipus Rex* called *Taliped Decanus*, as well as a character who coins phrases like "proctoscopy repeats hagiography". The title character of that novel by this author is raised by Max Spielman after being rescued from WESCAP and eventually rises to become the Grand Tutor of New Tammany College. Another of his protagonists marries the prostitute Joan Toast and is tutored by Henry (\*) Burlingame III. This author's novellas *Dunyazadiad*, *Perseid*, and *Bellerophoniad* can be found in his 1973 collection *Chimera*. In one of his novels, Ebenezer Cooke is given the title of "Poet Laureate of Maryland" and composes the titular poem about a tobacco merchant. For 10 points, name this postmodernist American author of *Giles Goat-Boy* and *The Sot-Weed Factor*.**

ANSWER: John Simmons Barth

20. In one version of this phenomenon, its namesake conductivity takes on values equal to the elementary charge squared over Planck's constant, a quantity which is multiplied by either a fractional or integral value. Another version of this phenomenon can be used to measure the charge carrier density, since it arises as a consequence of the Lorentz force law applied to those particles. Its namesake quantity is proportional to the product of current and (\*) magnetic field, divided by the thickness of the plate and charge carrier density. For 10 points, name this effect in which a magnetic field perpendicular to a current induces a voltage difference perpendicular to both.  
ANSWER: Hall effect

21. This man wrote an angry letter to FBI Agent James Hosty, who later destroyed the letter on orders of superiors. He was filmed handing out literature as the only member of the New Orleans chapter of the Fair Play for Cuba Committee. This man was found carrying a phony draft card for "A.J. Hidell." He was theorized to be a CIA agent manipulated by Clay Shaw in a theory of D.A. (\*) Jim Garrison. This man's wife Marina photographed him in the backyard holding Marxist newspapers and a rifle. A former defector to the Soviet Union, he was arrested in a movie theater for the murder of police officer J.D. Tippit. This man was killed in Dallas by nightclub owner Jack Ruby. For 10 points, name this man believed to be the sniper who killed John F. Kennedy.  
ANSWER: Lee Harvey Oswald

## Bonuses

1. Answer the following about non-traditional versions of the Frankenstein story on film, for 10 points each.

[10] This comedy movie director parodied Frankenstein with the film *Young Frankenstein*. His other films include *Blazing Saddles* and *Spaceballs*.

ANSWER: Mel **Brooks** [or Melvin James **Kaminsky**]

[10] This director made a short film and a recent Disney film called *Frankenweenie*. His other quirky films include *Corpse Bride* and the recent flop *Dark Shadows*.

ANSWER: Tim **Burton** [or Timothy Walter **Burton**]

[10] This man directed and starred in the 1994 film *Mary Shelley's Frankenstein*, which featured Robert De Niro as the Monster. He more recently directed *Thor* and played Laurence Olivier in *My Week with Marilyn*.

ANSWER: Sir Kenneth Charles **Branagh**

2. This event began after a reported violation of the Butler Act. For 10 points each:

[10] Name this event where one man was embarrassed after being asked where Cain got his wife. It was reported on by H.L. Mencken, who mocked "backward" people.

ANSWER: **Scopes** Monkey Trial [accept anything involving the fact it's a trial involving John **Scopes**]

[10] This former presidential candidate represented the prosecution at the Scopes trial and was embarrassed during cross-examination by Clarence Darrow. At the Democratic National Convention in 1896, he delivered the "Cross of Gold" oration.

ANSWER: William Jennings **Bryan**

[10] This 1987 Supreme Court case ruled that a Louisiana law requiring the teaching of creation science was unconstitutional because it was meant to advance religion. Either the plaintiff or defendant is acceptable.

ANSWER: **Edwards** v. **Aguillard** [only one name needed, reverse order okay too]

3. This author described an exiled servant of Kubera who asks a passing cloud to take a message to his wife in the 111-stanza poem *Megadhuta*. For 10 points each:

[10] Name this author of *The Recognition of Sakuntala*.

ANSWER: **Kalidasa**

[10] Kalidasa wrote in this ancient Indian language that was used to write such epics as the *Mahabharata* and the *Ramayana*.

ANSWER: **Sanskrit**

[10] This legendary poet is credited with writing the *Ramayana*, and is also revered as the "first poet" for composing the first shloka.

ANSWER: **Valmiki**

4. Ethidium bromide is useful in biological laboratories because it fluoresces under this type of radiation. For 10 points each:

[10] Name this type of radiation that causes the formation of thymine dimers. This type of radiation has wavelength between that of visible light and x-rays.

ANSWER: **uv** radiation [or **ultraviolet** radiation]

[10] Another way to induce mutations is to use base analogs like 5-bromouracil, whose enol form base pairs with this non-Adenine purine. This nucleotide is normally base paired to thymine.

ANSWER: **guanine** [accept **G**]

[10] This microbial technique, pioneered by the Lederbergs, is particularly useful in studying auxotrophic and antibiotic resistance mutations. In this technique, imprints of colonies are made and transferred to other plates.

ANSWER: **replica plating** [or **replicate plating**]

5. Before dying of Creutzfeld-Jakob disease, this man discovered the three "Baby Ballerinas." For 10 points each:



[10] Name this Georgian-born choreographer of the Ballets Russes who defected to the U.S. and co-founded the New York City Ballet.

ANSWER: George **Balanchine** [or Giorgi Melitonovitch **Balanchivadze**]

[10] Balanchine worked extensively with this Russian-born composer of ballets including *The Firebird* and *The Rite of Spring*

ANSWER: Igor [Fyodorovich] **Stravinsky**

[10] While heading the New York City Ballet, Balanchine commissioned *The Four Temperaments*, a ballet by this German-born composer of the opera *Mathis der Maler*.

ANSWER: Paul **Hindemith**

6. I don't see any of them coming up with the makeup gun, the automatic hammer, or the "everything's OK" alarm, but name these mythological inventors anyway, for 10 points each.

[10] Sumerians believed that the mattock was invented by this god, who formed a triad with Anu and Enki. He was banished from Dilmun after raping Ninlil, on whom he fathered Ninurta and Nanna.

ANSWER: **Enlil** [or **Ellil**]

[10] This Greek inventor jealously pushed his nephew Perdix off of a tower after Perdix invented the saw and the compass. He created a pair of wings he used to escape Crete, though his nephew Icarus totally blew it.

ANSWER: **Daedalus** [or **Daidalos**]

[10] In another mythos, this mage invents a stringed instrument called the *kantele* by stretching some hairs from Hiisi's stallion across the jawbone of a pike.

ANSWER: **Väinämöinen**

7. On his deathbed, this man asked to be moved to where he could see the emerald and sapphire sea, whatever that means. For 10 points each:

[10] Name this man, called "Hero of Two Worlds" for fighting in South America and Europe. This man led his Redshirts on the Expedition of the Thousand and fought the Battle of Volturno.

ANSWER: Giuseppe **Garibaldi**

[10] Garibaldi was a central figure in this process, which ended up creating a new country ruled by Victor Emmanuel II, the former King of Sardinia.

ANSWER: **Italian unification** [accept answers like the **creation of Italy** or the **Risorgimento** or the **Resurgence**]

[10] This later king of Italy supported the Bava-Beccaris massacre of protesters in Milan. He was killed in 1900 by an anarchist, which apparently inspired the assassin of William McKinley.

ANSWER: **Umberto I** [or **Humbert I**]

8. In growing cells, this process is inhibited by bcl2, which prevents release of cytochrome C from the mitochondrial membrane. For 10 points each:

[10] Name this process of programmed cell death.

ANSWER: **apoptosis**

[10] Apoptosis is regulated by this class of proteases, which is named for the residue they have in their active site and the residue at which they hydrolyze. They are divided into Initiator and Executioner classes.

ANSWER: **caspases** [or **Cysteine Dependent Aspartate proteases**]

[10] Another protein that induces apoptosis is p53, whose gene is classified as one of these genes, loss of function mutations in which lead to cancer. They are distinct from oncogenes, whose upregulation causes cancer.

ANSWER: **tumor suppressor** genes

9. This woman died in the Hall of Graceful Bird, probably due to arsenic poisoning. For 10 points each:

[10] Name this woman who dominated the Qing Dynasty for over forty years. She was the mother of the Tongzhi Emperor and the aunt of the Guangxu Emperor. Either her name or her familiar title is okay.

ANSWER: **Cixi** [or **Tzu-his**, or the **Dowager Empress**, accept in reverse order]

[10] This 1898 to 1901 uprising by the Righteous Harmony Society was supported by the Dowager Empress and was directed against foreign imperialism and Christian missionaries. It was defeated by the forces of the Eight Nation Alliance.

ANSWER: **Boxer** Rebellion/Uprising [or **Yihetuan** Movement]

[10] This Chinese general opposed the Boxers in the uprising. He was later the second President of China after Sun Yatsen and briefly reigned as a self-proclaimed “emperor” from 1915 to 1916.

ANSWER: **Yuan** Shikai

10. This epic presents the “last Lithuanian foray” and begins by comparing “my country” to “good health,” which is only prized once it is lost. For 10 points each:

[10] Name this national epic written by Adam Mickiewicz.

ANSWER: **Pan Tadeusz** [or **Sir Thaddeus**; accept reasonable synonyms for “Sir,” such as “Master” or “Mr.”]

[10] *Pan Tadeusz* is the national epic of this country, the birthplace of Nobel winner Czeslaw Milosz.

ANSWER: Republic of **Poland** [or Rzeczpospolita **Polska**]

[10] This Polish author wrote a trilogy of historical novels including *The Deluge* and *With Fire and Sword* in addition to a novel about Christians in the time of Nero, *Quo Vadis*.

ANSWER: Henryk **Sienkiewicz** [or Henryk Adam Aleksander Pius **Sienkiewicz**]

11. Answer the following about holomorphic functions in complex analysis. For 10 points each:

[10] Holomorphic functions are ones for which the complex equivalent of these objects exist. These operations correspond to the slope of a function’s tangent line, and integrals are sometimes called “anti-*these*”.

ANSWER: **derivatives**

[10] This man co-names a set of equations giving conditions for complex differentiability with Riemann. This mathematician co-names a generalization of the triangle inequality with Schwartz.

ANSWER: **Cauchy**

[10] Another theorem named for Cauchy allows one to calculate a complex-valued function's path integral in terms of these values for singularities inside the path. These values correspond to the coefficients of the  $x$  to the minus one term of the Laurent series.

ANSWER: **residue**

12. This man divided all knowledge into “ideas” we can know and “spirits” we assume exist because they cause us to think or feel. For 10 points each:

[10] Name this idealist British philosopher who argued that the world was made up of ideas that were ultimately created by God in his *Treatise Concerning the Principles of Human Knowledge*.

ANSWER: George **Berkeley**, Bishop of Cloyne

[10] Along with absolutely loving tar-water, Berkeley is usually credited with coining this phrase that states the conditions that allow sensible objects to exist.

ANSWER: **esse est percipi** [or “to be is to be perceived”; accept anything that indicates existence is depending upon *being* perceived]

[10] This other idealist philosopher introduced a “fourth conception of being” in *The World and the Individual* and attempted to relate religion to the contemporary world in *The Problem of Christianity*.

ANSWER: Josiah **Royce**

13. This battle made Admiral Edward Codrington a hero, but not to his military and bureaucratic superiors. For 10 points each:

[10] Name this October 20, 1827 battle fought between a European fleet, which sank Ibrahim Pasha’s Ottoman fleet. Not a planned engagement, it was the last major naval battle to be fought with sailing ships.

ANSWER: Battle of **Navarino**

[10] The Battle of Navarino occurred during the war of independence for this modern day European country against the Ottomans. Lord Byron died fighting for this country’s independence, and it is currently led by Karolos Papoulias.



ANSWER: **Greece** [or the **Hellenic Republic**]

[10] The first modern king of Greece, a guy from Bavaria, had this name. An older ruler with this name defeated the Magyars at the Battle of Lechfeld and was the son of Henry the Fowler.

ANSWER: **Otto** [number does not matter]

14. In 1961, the MoMA was embarrassed to discover that it had displayed *Le Bateau*, one of these works, upside down for 47 days. For 10 points each:

[10] Identify these works, also including *Blue Nude II* and *La Negresse*, which were created after their artist abandoned painting late in his life. A number of them were also collected in the 1947 book *Jazz*.

ANSWER: Henri(-Émile-Benoît) **Matisse's paper cut-outs** [accept "**cut-outs**" or "**gouaches découpés**" for the latter part]

[10] Matisse's earlier paintings, like *The Dance*, *Blue Nude (Souvenir de Biskra)*, and *Woman with a Hat*, were characteristic of this artistic movement, which he co-founded with Andre Derain.

ANSWER: **Fauvism** [accept word forms]

[10] The circle of cavorting figures from Matisse's *The Dance* also appear in the background of this colorful pastoral painting, which features a pair of amorous couples and several figures playing flutes.

ANSWER: *The **Joy of Life*** [or *Le **Bonheur de Vivre***]

15. This poem describes a figure who "measured to the hour its solitude" and who "was the single artificer of the world" in which she "sang beyond the genius of the sea". For 10 points each:

[10] Identify this 1934 poem in which the title concept is established by fishing boat lights which "Mastered the night and portioned out the sea, fixing emblazoned zones and fiery poles".

ANSWER: "The **Idea of Order at Key West**"

[10] This American poet wrote "The Idea of Order at Key West". His collection *Harmonium* contains such poems as "Thirteen Ways of Looking at a Blackbird" and "The Emperor of Ice Cream".

ANSWER: Wallace **Stevens**

[10] One of Stevens's more unusual poems virulently attacks these creatures, insulting their "bland motions" and referring to them as "ganders". A Yeats poem depicts "nine and fifty" of them sitting on a still lake "under the October twilight".

ANSWER: **swans** [accept "Invective Against **Swans**" or "The Wild Swans at **Coole**"]

16. In order to obtain this type of protection, a writing or phonocopy must be fixed and original. For 10 points each:

[10] Name this legal protection that gives authors the exclusive rights to their works for a fixed period of time.

ANSWER: **copyright**

[10] In U.S. law, this judicially created limitation to copyright protection allows limited copying for purposes such as commentary, parody, research, scholarship, and search engine archiving.

ANSWER: **fair use**

[10] An extremely important limitation on copyright is the dichotomy between expression and this other concept. Only expressions, and not these broader, generically named things, are copyrightable.

ANSWER: **ideas**

17. Earnshaw's theorem states that there is no stable configuration of point charges that are subject to this kind of force law. For 10 points each:

[10] Name this kind of force law which includes Coulomb's law and Newton's law of gravitation which describes the relationship of the force in question to the distance between the charges.

ANSWER: **inverse-square** force law

[10] This man names a special class of two body problems involving an inverse square central force. He also names three laws of planetary motion, the second of which states that a planet orbiting the sun sweeps out equal area in equal time.

ANSWER: **Kepler's Laws**

[10] For two bodies orbiting one another in accord with an inverse square force law, this triply-eponymous vector is conserved. It is the difference of two terms, the first of which is the cross product

of momentum and angular momentum.

ANSWER: Laplace-Runge-Lenz vector [accept any subset or ordering of these names]

18. This composer rose to fame for his oratorio *Le Roi David*. For 10 points each:

[10] Name this twentieth-century French composer who wrote a *Symphonie Liturgique* and three “symphonic movements,” one of which was called *Rugby*.

ANSWER: Arthur Honegger

[10] Honegger was a member of this numbered group of French composers that also included Germaine Tailleferre, Francois Poulenc, and Darius Milhaud.

ANSWER: Les Six [or The Six]

[10] Honegger’s symphonic movement *Pacific 231* depicts a vehicle of this type.

ANSWER: train [or locomotive or other equivalent]

19. Popular examples of these trips include the one to Lourdes and the hajj. For 10 points each:

[10] Name this type of journey whose process leads to or destination is something of spiritual or religious significance.

ANSWER: pilgrimage

[10] Hindus on the Kumbh Mela pilgrimage journey to holy examples of these geographical features. Christians often travel to the feature of this type where Namaan was cured of leprosy and where the Holy Spirit proclaimed Jesus to be the only son of God.

ANSWER: rivers

[10] Pilgrimage to this Spanish church was super popular in the Middle Ages. Travelers from France look for shells that mark the most popular routes towards this cathedral, which holds the bones of its namesake saint.

ANSWER: Cathedral of Santiago de Compostela

20. This character relates that his first memory is of stealing turnips in Essex, and he is first encountered in a churchyard, where he scares the protagonist into stealing food and a file for him. For 10 points each:

[10] Identify this character who returns from Australia to England under the alias “Provis”, in part to avoid his ex-partner Compeyson. He provides support to a certain orphan through the lawyer Mr. Jaggers.

ANSWER: Abel Magwitch [accept either answer; prompt on “the Convict”]

[10] Abel Magwitch serves as the benefactor of Philip “Pip” Pirrip, the protagonist of this Charles Dickens novel, which also features such characters as the eternally jilted Miss Havisham.

ANSWER: Great Expectations

[10] Mr. Jaggers employs this bill collector, who owns a castle-like house in Waltham and is engaged to Miss Skiffins. This character’s father is usually referred to as “The Aged Parent” or “The Aged P”.

ANSWER: John Wemmick

21. This law states that the amount of gas that will go into solution is proportional to the gas’ partial pressure at the surface between the liquid and the gas. For 10 points each:

[10] Name this law, which explains the fizzing associated with opening pop cans.

ANSWER: Henry’s Law

[10] This law, which is a combination of Charles’ and Boyle’s law, states that the product of pressure and volume is equal to the product of moles, temperature or gas constant.

ANSWER: ideal gas law

[10] The ideal gas law is improved by the Van der Waals equation, which takes into account the intermolecular forces and this other property of the molecules.

ANSWER: size [or volume; accept equivalents like bigness, I guess]