

Bergen Academies Spring Quizbowl Tournament II [BASQT II]

Written by David Song, Simon Seal, Ryan Murphy, Caleb Shi, Mollie Bakal, John Ferrante, Marvin Yu, Michael Gleyzer, Derek Lin, and Nathan Tang, **Bergen County Academies**; Zachary Stier, **Princeton University**; Rebecca Rosenthal, **Swarthmore College**.
Special thanks to Jon Pinyan.

Round 14: Tossups

1. This language's prose epics, such as "The Garden and Spring" and "The Flower Bed of Chin", are called *dastan*. Amir Hamza, Muhammad's uncle, is a character in one dastan in this language. It's not (*) Persian, but *rubai* is the singular term for quatrains in this language. Other poetic forms in this language include *nazm* and *ghazal*. Written in the nastaliq style of Persian, this language was used by Munshi Premchand to write short stories, or *afšana*. For ten points, name this Hindustani language spoken in northern India and Pakistan.

ANSWER: Urdu

2. Europa is suspected to contain this compound that may be responsible for its liquid water, and it can be produced by the dry distillation of pyrite. Nitric oxide is present in Glover towers once used to manufacture this compound, although the modern method uses vanadium pentoxide and is called the (*) contact process. Typically used in lead-acid batteries, this compound is a strong dehydrator and is also diluted in acid rain. For ten points, name this strong acid with formula H-2-S-O-4.

ANSWER: sulfuric acid (accept H-2-S-O-4 until mentioned; prompt on "oil of vitriol")

3. A doctor rests his arm on two books of this color in one portrait. A painting based off of a sculpture in Pont-Avens predominantly uses this color in showing its subject and surrounding fields. The stigma of crocuses can be used to create this color in a dye known as (*) saffron. Paintings of a green and this color religious figure both include Breton women and were completed by Paul Gauguin. Another artist used this color to depict his bedroom at Arles. With black, white, blue and red, this is the main color of the works of Piet Mondrian. For ten points, name this primary color used to paint the petals of Van Gogh's *Sunflowers*.

ANSWER: yellow

4. This ruler's troops defeated Kavadh I at the Battle of Dara as part of the Iberian Wars, and he further expanded his territory with the Vandalic War against Carthage. Pope Silverius was deposed during this man's reign by his general (*) Belisarius, who also defeated the Vandals and Ostrogoths, reclaiming Sicily and the Italian peninsula. The Hagia Sophia was constructed under the reign of this man after destruction caused by the Nika riots. Theodora was the wife of – for ten points – what Byzantine emperor who established a law code?

ANSWER: Justinian I (accept Justinian the Great)

5. In one work by this author, Samuel Shattuck states "The king commandeth your friends' release... 'To his subjects' sorrow and sin's increase," in reference to Quaker prisoners. In another work, the main character takes up "flag the men hauled down," and was "Bravest of all in (*) Frederick town". That character states "Shoot, if you must, this old gray head, But spare your country's flag," in response to Confederate soldiers. This poet describes a family's recollection during the title weather storm during a "brief December day" after the US Civil War. For ten points, name the poet of *The King's Missive*, *Barbara Frietchie*, and *Snow-Bound*.

ANSWER: John Greenleaf Whittier

6. Gauss proved one theorem with this adjective in its name in six different ways; that result describes the product of two Legendre symbols as either -1 or 1 , depending on the prime inputs. This type of mean is greater than all of the harmonic, geometric and (*) arithmetic means, and the average runtime of the insertion sort can be described using this adjective. Completing the square can be used to find a formula of this name. For ten points, name this type of polynomial most commonly written in the form ax^2+bx+c .

ANSWER: quadratic

7. During this event, Joseph de Montfort's troops prematurely destroyed a bridge, leading to the death of Jozef Poniatowski in the Elster River. The Trachenberg Plan was carried out in this battle, where Antoine Drouot commanded artillery on Gallows Height. On the third day of this battle, a truce was rejected by (*) Tsar Alexander I and Frederick William III of Prussia. After defeat in this battle, the Confederation of the Rhine was dissolved, with many sides joining the Russian-led alliance. For ten points, name this "Battle of the Nations" in which the Sixth Coalition successfully defeated Napoleon.

ANSWER: Battle of Leipzig (prompt on "Battle of the Nations" before mentioned)

8. A proposed mechanism for lithography involves an "extreme" variety of this phenomenon with tin plasma as a source. Avobenzene and oxybenzone are organic absorbers of this phenomenon. According to classical physics, an ideal black body at equilibrium would emit an (*) infinite amount of energy, leading to its namesake "catastrophe". Although about 10% of sunlight reaching the Earth is from this spectrum, although most of it is blocked by the ozone layer. For ten points, name this region of the electromagnetic spectrum with wavelength longer than X-rays but shorter than visible light.

ANSWER: ultraviolet light (accept UV)

9. Berengar assumes the role of Librarian following Malachi's death in one of this author's novels. In another of his novels, Casaubon reflects in a museum as he hides from a secret society when Abulafia's made-up conspiracy theory goes awry. That novel also centers on Belbo and the search for the (*) Knights Templar. The blind monk Jorge eats a lost portion of Aristotle's *Poetics* in a novel by this author, which is narrated by Adso of Melk. Adso is the scribe to William of Baskerville in this author's *The Name of the Rose*. For ten points, name this postmodern novelist of *Foucault's Pendulum*.

ANSWER: Umberto Eco

10. At the start of one section of this work, Theseus marches onto Thebes after King Creon refuses to the bury soldiers for their widows. One character becomes a page and takes on the pseudonym, Philostrate, in attempt to get closer to Emily. That character, (*) Arcite, eventually duels with his cousin Palamon for the hand of Emily, a duel which Palamon ultimately wins. One character brags about how she has had six husbands and tells a story about the question: "What is it that women most desire?" For ten points, name this Geoffrey Chaucer work, a collection of tales told by pilgrims.

ANSWER: The Canterbury Tales

11. The belief that there are two types of statements, those about ideas and those about the world, is known as this man's fork. This man's guillotine is the concept that one cannot draw conclusions about what should be based on what there is, an idea he called the (*) is-ought distinction. This British sentimentalist believed that emotions provide the basis for ethics, and posited that person could imagine a shade of blue which they had never seen before. The inability to prove causation was explored in his book "An Enquiry Concerning Human Understanding." For 10 points, name this Scottish sceptic philosopher.

ANSWER: David Hume

12. Eight-Point Regulation of the Center was put forward by this person, who is often referred to as “the core”. This man’s early political career was marked by the Yuanhua scandal while he was governor of Fujian province. He participated in the “shirtsleeves summit”, and fellow (*) princeling Bo Xilai was jailed under his rule. This popularizer of the “Chinese Dream” was in charge of final preparations for the 2008 Beijing Olympics while vice president under Hu Jintao. For ten points, name this current President of the People’s Republic of China.

ANSWER: Xi Jinping

13. This work features a character singing “Every one of fifty thousand/would do whatever you asked them to”. It ends with an instrumental entitled “John Nineteen: Forty One”. The title character, sung by Ian Gillan on the concept album, sings (*) that he’s “tried for three years, seems like ninety” in the song “Gethsemane” [geth-SEH-men-ee], and asks “Will none of you stay awake with me?” “Heaven on Their Minds” is the opening song sung by Judas Iscariot, and this work features a scene of the Last Supper. For ten points, name this Andrew Lloyd Webber musical about the last days of the Son of God.

ANSWER: “Jesus Christ Superstar”

14. This franchise is the only publicly-traded American sports team. In one game, this team’s coach told his quarterback to “Run it, and let’s get the hell out of here!”; the block by Jerry Kramer and Ken Bowman led to Bart Starr scoring the game-winning touchdown of the Ice Bowl. (*) Vince Lombardi coached this team to victories in the first two Super Bowls, and they won in 1996 led by Brett Favre [“farv”]. Currently, this team is coached by Mike McCarthy, and plays home games in Lambeau Field, Wisconsin. For ten points, name this team of star quarterback Aaron Rodgers.

ANSWER: Green Bay Packers (accept either part)

15. The suprachiasmatic nucleus receives neural signals from this organ. Most holometabolous larvae have the stemma form of this organ, while their adults might have ocelli. Ommatidia are present in this organ of the mantis shrimp, which can perform (*) spectral tuning, adapting to its environment. Trilobites had calcite crystals in these organs, of which they had the compound type; other kinds include the reflector and ones with refractive corneas. Evolved from patches of light-sensitive cells are – for ten points – what organ of sight?

ANSWER: eye

16. In this address, its orator likens the zeal of certain politicians to that of Crusaders following Peter the Hermit, and argues that the definition of a “business man” should be expanded. This speech references Thomas Benton’s likening of Cicero saving Rome to Andrew Jackson saving America by killing the (*) bank, and says that William McKinley likens himself to Napoleon. At its close, its Free Silverite orator stated that “you shall not crucify mankind upon” the title object. For ten points, name this 1896 speech by William Jennings Bryan.

ANSWER: Cross of Gold speech (accept Bryan’s speech at the 1896 Democratic National Convention before mention)

17. Karl Popper’s theory of empirical falsification made him an eminent philosopher in this field. The instrumentalist approach to this field, sometimes referred to as “shut up and multiply”, is contrasted with the empiricist and rationalist bases for it. The demarcation problem was ignored by Richard Feynman in his description of the (*) cargo cult variety of this. Francis Bacon has been credited with this area’s namesake “method”. For ten points, name the field of enquiry which uses experimentation to find facts.

ANSWER: science (do not accept or prompt on subfields, such as physics or phrenology)

18. The end of this work features a chromatic scale played by the whole orchestra before falling into a E-flat major “Grandioso” section. The trumpet plays a C major driving theme early in this work, called the “Train” theme. This piece was premiered during a concert named (*) “An Experiment in Modern Music” and was commissioned by Paul Whiteman. This work begins with a clarinet trill and glissando, an alteration made by Ross Gorman in rehearsal, and leads into the “Ritornello” theme of this work. For ten points, name this work inspired by a train ride to Boston, by George Gershwin.

ANSWER: Rhapsody in Blue

19. Until 1941, the Provisional Government of the Republic of Korea was based in this city, and in the January 28 Incident it was defended by the National Revolutionary Army. An “International Settlement” in this city was a British-American enclave established after the Unequal Treaties, one of which was the Treaty of (*) Nanking ending the Opium Wars. Deng Xiaoping’s economic reforms turned the Pudong district into an economic hub which is now home to the World Financial Centre and the Oriental Pearl Tower overlooking the Yangtze River Delta. For ten points, name this most populous city in China.

ANSWER: Shanghai

20. Ole Lukøje carries two umbrellas, one painted and one plain, which he uses to influence children involved in this activity. Brynhildr was forced to engage in this activity by Odin’s svefnthorn. Domovoi protect people engaged in this activity, while (*) incubi victimize people engaged in this activity. In one culture, rheum in one’s eyes after this activity is attributed to the Sandman. Somnus was the Roman god of this activity, though he is often mistaken for his son Morpheus, god of dreams. For ten points, name this activity Rip van Winkle wakes up from after more than twenty years.

ANSWER: sleeping

TIEBREAKER:

Robert Kalina designed the first series of the banknotes for this currency. Redesigns to the banknotes for this currency proposed in 2013 included adding a woman. It’s not the dollar, but the subunit of this currency is the cent. It was issued electronically (*) before being released physically in 2002, and surpassed the dollar as the most widely circulating currency by 2013. The conditions for use of this currency, including having government debt of less than 60% were set by the Treaty of Maastricht. Unlike Ireland, the U.K. does *not* use – for ten points – what common currency used by some members of the European Union.

ANSWER: euro

Round 14: Bonuses

1. The title phenomenon of this work is “yellow, and black, and pale, and hectic red”. For ten points each:

[10] This poem, published in the collection “Prometheus Unbound”, refers to its subject as “the breath of Autumn’s being”. Some scholars believe this poem’s subject is meant to be understood as spreading the words of the poet.

ANSWER: **Ode to the West Wind**

[10] This British poet of *Ode to the West Wind* also wrote *Adonais* and *Ozymandias*. His wife is known for creating *Frankenstein*.

ANSWER: Percy Bysshe **Shelley**

[10] “Hail to thee, Blithe Spirit” is the opening line of this Shelley poem. The blithe spirit addressed is later said to be, “Like a cloud of fire.”

ANSWER: **To a Skylark**

2. For ten points each, identify these important proteins.

[10] This protein is made up of pairs of alpha and beta subunits, with a site for binding oxygen. A mutation that changes glutamate to a valine in this protein causes sickle cell anemia.

ANSWER: **hemoglobin** or **haemoglobin**

[10] Along with actin, this ubiquitous protein is responsible for many types of cellular movement including vesicle transport and muscle contraction.

ANSWER: **myosin**

[10] This broad family of proteins is responsible for many parts of apoptosis cascades. They come in “executioner” types and are commonly measured in a lab assay for apoptosis.

ANSWER: **caspases**

3. Advances in agriculture have helped to enrich all civilizations. For ten points each:

[10] This technique was developed in Mesopotamia and consists of regularly changing what is planted in a specific field so that the soil doesn’t lose all of the same nutrients.

ANSWER: **crop rotation**

[10] This tool is used for sowing at a consistent frequency and depth. Jethro Tull substantially improved the design of a horse-drawn version of this tool.

ANSWER: **seed drill**

[10] This corporation is known for its line of genetically modified food crops. It was the largest contributor in the campaign opposing California’s Proposition 37, which would have required labeling GMOs.

ANSWER: **Monsanto**

4. For ten points each, answer some questions about the Emerald Isle:

[10] This piece of legislation created the Irish parliament. This legislation had to be introduced three times in the House of Commons; the first two times, it was vetoed by the House of Lords.

ANSWER: **Home Rule Act** or **Government of Ireland Act 1914**

[10] The Home Rule Act was passed partially as a result of the lobbying of this political party that supports Irish independence. It is currently the third largest political party in the Irish parliament and has been associated with the Irish Republican Army.

ANSWER: **Sinn Fein** [“shin fain”]

[10] Sinn Fein is the second largest political party in this country with capital at Belfast.

ANSWER: **Northern Ireland** or **Tuaisceart Eireann**

5. This landmark is actually made of copper with a layer of thick patina covering it. For ten points each:

[10] Name this green statue was built on Bedloe's Island, surrounded by Jersey City, New Jersey's waters.

ANSWER: **Statue of Liberty** or **Liberty Enlightening the World**

[10] The Statue of Liberty was designed by this French sculptor, who is said to have modeled her face on his mother's.

ANSWER: Frédéric Auguste **Bartholdi**

[10] This Roman goddess is depicted in the statue; her Greek equivalent is Eleutheria.

ANSWER: **Libertas**

6. These people, who live in what is now Ghana, are excellent goldsmiths. For ten points each:

[10] Name this culture. Their king sits on a Golden Stool which is not allowed to touch the ground and appears on their flag.

ANSWER: **Ashanti**

[10] Gold foil was often used by this Austrian painter in works like *Portrait of Adele Bloch-Bauer* and *The Kiss*.

ANSWER: Gustav **Klimt**

[10] Gold was used to make a funerary mask that Heinrich Schliemann attributed to this mythical Mycenaean king of Trojan War fame, though it probably predates the Trojan War by several centuries.

ANSWER: **Agamemnon**

7. Although passed in 2012, this state did not begin commercial sales until 2014. For ten points each:

[10] This state legalized recreational marijuana use under Governor John Hickenlooper.

ANSWER: **Colorado**

[10] Colorado also legalized this practice of ending human life to avoid further suffering in terminal disease patients.

ANSWER: **Physician-assisted suicide** (prompt on **Euthanasia**)

[10] Marijuana use and physician-assisted suicide in Colorado were both legalized using this method, in which specific acts of legislation are voted for by the general public.

ANSWER: **Initiative**

8. Minkowski represented this property as the fourth dimension of his diagrams. For ten points each:

[10] The Newtonian understanding of this property allows it to act as a dimension through which the other dimensions change.

ANSWER: **Time**

[10] The title of James McTaggart's most famous work implies that time has this property, which he argues throughout the essay. It is now more commonly used as a superlative hyperbole rather than a negative.

ANSWER: **Unreal** (do not accept or prompt anything else)

[10] In "The Unreality of Time," McTaggart argues that time is unreal because this description of time requires circular reasoning to justify. This description involves breaking time into past, present, and future.

ANSWER: a **series**

9. In this work, Gus is severely beaten at the poolroom and forced to lick the blade of the protagonist. For ten points each:

[10] Bigger Thomas, a poor African-American man, is sent to prison for crimes that Bigger's lawyers claims were inescapable. The defense is not accepted and Bigger is sentenced to death.

ANSWER: **Native Son**

[10] "Native Son" was written by this African-American author who also wrote, "Uncle Tom's Children."

ANSWER: Richard **Wright**

[10] This auto-biographical book by Richard Wright was published in two parts; the second portion, dealing with his Communist Party associations, was published posthumously.

ANSWER: **Black Boy**

10. This process contains two isothermal and two adiabatic processes. For ten points each:

[10] Name this process named after a Frenchman, the most efficient heat engine.

ANSWER: **Carnot** cycle or engine

[10] Efficiency is measured as the ratio of this value and the heat taken from the hot reservoir.

ANSWER: **work** done by the engine

[10] This cycle is used in one of the most efficient practical engines. In this cycle, fuel is ignited by heat produced from the compression of air.

ANSWER: **Diesel** cycle

11. For ten points each, answer some questions about the early Indian wars.:

[10] This man led the native forces in the war named after him; this man's confederacy was centered at Prophetstown in what is now Indiana. His brother was Tenskwatawa.

ANSWER: **Tecumseh**

[10] Tecumseh was killed at this battle of the War of 1812. He and members of his confederacy had been assisting the British during this battle located in Canada.

ANSWER: Battle of the **Thames** or Battle of **Moraviantown**

[10] This governor of the Indiana territory and future president led the United States forces at the Battle of the Thames. He was known as "Old Tippecanoe" for a battle in Tecumseh's War.

ANSWER: William Henry **Harrison**

12. In one work, this poet states that, "The only moving thing, was the eye of" the title creature. For ten points each:

[10] Name this poet who wrote that "It was snowing, And it was going to snow," where the title creature sat "in the cedar limbs," in *Thirteen Ways of Looking at a Blackbird*.

ANSWER: Wallace **Stevens**

[10] In this Stevens work, the narrator asks to "Call the roller of big cigars," and states that the title character is the only true king.

ANSWER: **The Emperor of Ice Cream**

[10] Wallace Steven was inspired by Pablo Picasso in this work where the title character must play "A tune beyond us, yet ourselves, A tune upon," on the title object.

ANSWER: **The Man With the Blue Guitar**

13. For ten points each, answer some questions about a certain lance utilized in dragon-slaying:

[10] This man is featured on Moscow's coat of arms slaying a dragon and his cross is featured on the flag of England.

ANSWER: St. **George**

[10] This is the name of the lance St. George used to slay the dragon. It's name comes from a town in the Levant.

ANSWER: **Ascalon**

[10] This British Prime Minister's personal airplane was referred to as Ascalon. It featured a custom-built pressurized cabin so that important guests would not need to wear the standard oxygen masks.

ANSWER: Winston **Churchill**

14. For ten points each, name these Supreme court cases involving hotels:

[10] Name this Supreme Court case that found that Congress had the authority to order hotels to serve black customers. More generally, it found the anti-segregation provisions of the Civil Rights Act constitutional.

ANSWER: **Heart of Atlanta Motel** Inc. v United States

[10] The Civil Rights Act was considered constitutional in Heart of Atlanta Motel because of this portion of Article 1, Section 8 of the U.S. constitution. It regulates a certain type of interstate interactions.

ANSWER: **Commerce Clause**

[10] This Supreme Court case expanded the Commerce Clause and ended the Lochner era; it found a Washington state minimum wage law constitutional.

ANSWER: **West Coast Hotel Co. v. Parrish**

15. For ten points each, answer some questions about Conways:

[10] This campaign manager for Donald Trump now serves as Counselor to the President, and was ridiculed for the term “alternative facts”. First name required.

ANSWER: **Kellyanne** Elizabeth Conway

[10] John Horton Conway invented this zero-player game, which can include glider guns and lobsters which can behave in complicated ways from a simple starting positions.

ANSWER: Conway’s Game of **Life**

[10] In the fourth season of “House of Cards,” this is the Republican running against incumbent Frank Underwood. He was previously a governor of New York and makes heavy use of social media. First name required.

ANSWER: **William** Conway

16. The driving factors of this biological process are autolysis and putrefaction. For ten points each:

[10] This is the scientific name for the breaking down of old organic matter. Many fungi derive their energy from this process.

ANSWER: **Decomposition**

[10] This process in which water is used to split compounds plays an important role in decomposition of most organic matter. Strong acids added to water also undergo this process.

ANSWER: **Hydrolysis**

[10] This process is the hydrolysis of complex carbohydrates. The biological relevance of this process is the creation of simpler sugars that organisms can use for energy.

ANSWER: **Saccharification**

17. One character in this novel owns a cat named Schrodinger with her husband, Oliver. For ten points each:

[10] Name this 2013 novel by Ruth Ozeki which alternates between the diaries of Nao, a Japanese-American teenager, and Ruth’s experiences reading them after they wash up on a beach.

ANSWER: *A **Tale for the Time Being***

[10] Nao’s diary is written in a copy of *In Search of Lost Time*, by this French author who is also quoted throughout the novel.

ANSWER: Marcel **Proust**

[10] Ruth and Oliver read this magazine currently edited by David Remnick. This magazine is famous for its cartoons and covers featuring a dandy character. A cover showing the twin towers in its eponymous city after 9/11 was designed by Art Spiegelman.

ANSWER: *The **New Yorker***

18. Cryptids are widely reported but scientifically unverified creatures. Identify these cryptids for ten points each:

[10] This cryptid is most commonly reported in the Pacific Northwest and has distinctive podiatric features.

ANSWER: **Sasquatch** or **Bigfoot**

[10] This cryptid is most commonly reported in the American Southwest; it is a cross between a large breed of rabbit and a small breed of deer.

ANSWER: **Jackalope**

[10] This Australian cryptid is said to live in swamps and marshes, though is disputed if it resembles a large starfish or if it has a crocodilian head with platypus like flippers.

ANSWER: **Bunyip**

19. This empire developed the chinampa as means of farming on shallow lake beds. For ten points each:

[10] This empire's capital city at Tenochtitlan fell in 1521.

ANSWER: **Aztec** Empire

[10] This conquistador lived in Cuba before his conquest of the Aztecs; the governor of Cuba officially recalled his expedition before he left, but this man ignored the order.

ANSWER: Hernan **Cortes**

[10] This woman served as the guide to Cortes' expedition and was the mother of Cortes' child Martin.

ANSWER: **Malinche** or **Dona Malina**

20. Maurice Ravel orchestrated one of this composer's piano works that depicted him moving through an art display. For ten points each,

[10] Name this composer, a member of "The Five" and composer of *Pictures at an Exhibition*.

ANSWER: Modest **Mussorgsky**

[10] Mussorgsky's only completed opera was this opera, in which a novice monk attempts to usurp the tsar of Russia. It is based on a play of the same name by Alexander Pushkin.

ANSWER: **Boris Godunov**

[10] This tone poem by Mussorgsky begins with strings playing chromatic triplets, and ends with the harp and bells representing the sun. It depicts a witches' sabbath, and was edited by Rimsky-Korsakov.

ANSWER: **Night on Bald Mountain** (accept **Night on the Bare Mountain**)

EXTRA:

These mathematical objects differ from polygons in that they do not have to scale in terms of an integer. For ten points each:

[10] This term refers to mathematical sets which are self-similar at every scale; graphical representations of them look the same when you zoom in or zoom out.

ANSWER: **Fractal**

[10] This Polish mathematician discovered a fractal which has zero area and is made by dividing a square into 9 congruent squares, removing the middle square, and repeating the process on the remaining squares forever.

ANSWER: Waław Franciszek **Sierpiński**

[10] This fractal, named after its Italian discoverer, was the first known space-filling curve. This fractal was found after its discoverer learned of Cantor's result that the unit interval and the unit square had the same cardinality.

ANSWER: **Peano curve**