

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 11: Tossups

1. One of this author's characters has a limp due to a childhood case of polio, and is left in the dark with her high school crush. In that work, the protagonist gets angry when his mother returns his D.H. Lawrence novel to the library. One character in another of this playwright's works sends a fake letter to (*) Shep Huntleigh containing information about how she and Stella have been partying since her arrival. Stanley Kowalski assaults his wife after she defends her sister Blanche who lost their family home of Belle Reve to debtors. For ten points, name this author *The Glass Menagerie* and *A Streetcar Named Desire*.

ANSWER: Thomas Lanier **"Tennessee" Williams** III (prompt on just "Williams")

2. Ferdinand Preiss created sculptures of bronze and this substance, which was imitated by bakelite. The Somalia Amendment put one source of this material on the Appendix One of CITES, banning international trade of it in 1989. In 2016, over 100 tons of this material were deliberately burned in (*) Nairobi National Park, although fossilized ones are not regulated and are found in preserved woolly mammoths. Used in billiard balls and piano keys are – for ten points – what white dental material often harvested from elephants' tusks?

ANSWER: **ivory** (prompt on "teeth")

3. These enzymes were discovered in E. Coli by Arthur Kornberg. REV3 and REV7 produce the zeta form in the B family of these enzymes. Biological aging is partly attributed to these enzymes, which cause telomere shortening. Retroviruses produce the (*) RNA dependent type of these enzymes, also called reverse transcriptase, which is distinct in that it violates the central dogma of biology. Before this enzyme can perform its function, helicase must unzip the DNA into two single strands. For 10 points, name these enzymes that synthesize new molecules of DNA from nucleotides.

ANSWER: **DNA polymerase** (do not accept or prompt on partial answers)

4. Jean Metzinger's *L'Oiseau Bleu* is a work from this movement, and he helped establish its "Crystal" phase. Metzinger was part of the *Section d'Or*, along with members of a splinter school, Orphism, that placed higher emphasis on color. Georges (*) Braque transitioned from Fauvism to this movement after seeing the three-dimensional works by Cézanne in 1907. That same year, a painting of prostitutes from Barcelona contained elements of what would become this movement. For ten points, what 20th century movement depicts objects from multiple perspectives simultaneously, exemplified by the work of Pablo Picasso?

ANSWER: **Cubism**

5. John Calvin claimed that unless the writer of this book was a liar, the Shroud of Turin could not be authentic. Although a verse in this book was later used by the Arians to argue against Christ's divinity, its prologue identifies Jesus as the incarnation of the Divine (*) Logos. This book tells of Jesus washing the Apostles' feet after the Last Supper, and notably places the cleansing of the temple early in Jesus's ministry. The writer of this book claims to be an eyewitness to the events he describes, and refers to himself anonymously as "the Disciple whom Jesus loved." For ten points, name this fourth book of the New Testament canon.

ANSWER: The Gospel of **John** or The Gospel According to **John**

6. Abood v. Detroit Board of Education forbade extending these to the public sector. The Taft-Hartley Act explicitly gave states in the U.S. the ability to create these laws; they now exist in 27 states. In 2011, when Governor of (*) Wisconsin Scott Walker enacted one of these, he claimed it gave “employers another compelling reason to” come to his state while teachers again protested what they saw as his assault on unions. For 10 points, name this type of legislation that allows employees to work without paying for union representation.

ANSWER: right to work law

7. In one painting, Caversham Bridge is shown cattle in this body of water, and Isis Lock was built at a canal here in 1796. Abingdon Road crosses this river over the Folly Bridge, and its Millennium Bridge was closed after reports of wobbliness. This river’s first main bridges were (*) pontoons built by the Romans, and Robert McCulloch relocated another to Lake Havasu City. The Tower Bridge on this river was painted red, white, and blue for the Silver Jubilee. For ten points, what river is spanned by the London Bridge?

ANSWER: the River Thames

8. Henry Grady was the editor of this city’s *Constitution*, and advocated for the establishment of a university now in its Midtown. Bank of America Plaza is a skyscraper in this city, although the building was built to be headquarters of Citizen & Southern National Bank. The Zero Mile Post can be found in this city, which in 1836 became the (*) end of the Western and Atlantic Railroad. John Pemberton established the Coca-Cola company in this city, which hosted the 1996 Summer Olympics. For ten points, name this capital and most populous city of Georgia.

ANSWER: Atlanta

9. In one play by this author, the stage-keeper enters and criticises the play for its lack of romance but then proceeds to be pushed away by the bookkeeper. Celia is the wife of one of the legacy hunters that are after the wealth and estate of the titular Venetian merchant whom he tries to seduce in this man’s play. (*) Santiago crosses the Sahara in a caravan and meets an Englishman who is trying to pursue the title career in this playwright’s most famous work. *Bartholomew Fair*, *Volpone*, and *The Alchemist* are written by - for ten points - what 16th century English playwright?

ANSWER: Ben Jonson

10. He’s not Henry II, but a 10% tax named after this ruler was enacted in England in 1188. He defeated Aleppo and Mosul at the Horns of Hama, and in one account executed Raynald of Châtillon after the latter’s refusal to convert to Islam. This founder of the Ayyubid dynasty was offered a truce by (*) Baldwin IV after the Battle of Jacob’s Ford. This sultan allowed Jews to return to a city he took after its residents threatened to destroy the al-Aqsa Mosque and the Dome of the Rock. For ten points, what Muslim ruler captured Jerusalem, sparking the Third Crusade?

ANSWER: Saladin (accept Salah ad-Din Yusuf ibn Ayyub)

11. In this novel, Josef Hamacher claims that no patient at the Catholic hospital ever returns from the “Death Room”. Bertinck is killed after shooting a flamethrower operator, and after being ambushed by his own soldiers, the former postman Himmelstoss ceases to torment his enlistees. The narrator and (*) Katczinsky steal a goose, in this novel, and those characters later guard a deserted down along with Muller and Kropp, away from the starving German trenches. For ten points, name this 1929 novel about the World War I soldier Paul Baumer, written by Erich Maria Remarque.

ANSWER: All Quiet on the Western Front or Im Westen Nichts Neues

12. This country's navy was victorious at the Battle of Papudo in the Chincha Islands War, which it entered after a fleet arrived at the port of Valparaíso. That navy fought this country's army in an 1891 civil war that ended after President José Manuel Balmaceda committed suicide. This country captured (*) Antofagasta in a war which saw a northern neighbor become landlocked and this country gain control of the coast from Peru to the Tierra del Fuego, which it shares with Argentina. On the Pacific coast is – for ten points – what South American country with capital at Santiago?
ANSWER: Chile

13. Jupiter and Io are connected by a tube named after this quantity, in which its value is constant. The direction of induced current is such that the created magnetic field is antiparallel to the change in this quantity, according to Lenz's Law. Faraday's Law states that induced (*) e-m-f is the negative time derivative of this quantity, while Gauss's Law of Magnetism prohibits the existence of monopoles by stating that it is zero for a closed surface. Measured in webers ["vay-bers"] are – for ten points – what quantity, the net magnetic field through a given area?
ANSWER: magnetic flux (do not accept partial answer)

14. This opera was banned in the country in which it is set, despite the usage of folksongs from that country. The protagonist of this opera is warned of death by Liu, in the aria "*Signore, ascolta*," should he strike the gong three times, and is mocked by three ministers, named (*) Ping, Pang, and Pong. After the protagonist wins the reluctant hand of the title character, he sings an aria in which he declares "Vincero!" as the title character cannot name him. Prince Calaf sings the aria "Nessum dorma" in – for ten points, – what opera by Giacomo Puccini about the titular princess of China?
ANSWER: Turandot

15. One work of this type showing the Bishop Maximianus and Justinian is found on the apse of the Church of San Vitale. Another work in this medium is based off an earlier Greek version shows Darius retreating at the Battle of Issus. That work, known as the (*) "Alexander", was found on the floor of the House of the Faun in Pompeii. Tesserae are the smaller components that make up works in this medium. For ten points, identify this artistic medium where small pieces of glass or pottery are combined to make an image.
ANSWER: mosaics

16. The *tyet* is a knotlike symbol used to represent this figure, who is often depicted with a headpiece shaped like a throne. In another depiction, this deity is a sycamore tree nursing the king sitting on that throne, who was once considered her husband. Using saliva and clay, she created a snake to bite (*) Ra, who she healed on the condition that she tell her his secret name. The floods of the Nile River were attributed to this goddess's tears for her dead husband, who was cut into fourteen pieces by Seth. The wife of Osiris is – for ten points – what Egyptian goddess, the mother of Horus?
ANSWER: Isis

17. The EGFLAM gene codes for a protein named after this species, which was featured on the \$1 coin of Niue. Forest-dwelling members of this species have been documented to roast berries using glands in their cheeks. Females have a notched tail, and a blue-eyed one is seen surfing in the (*) Seafoam Islands. They can be found holding a Light Ball in the Trophy Garden, and they are native to the Viridian Forest. The most famous member of this species rescues its partner from a flock of Spearow. Accompanying Ash Ketchum is – for ten points – what Electric Mouse Pokémon?
ANSWER: Pikachu

18. Madame Schachter yells that she sees fire in the darkness in this work, but is tied up and gagged as a result. The protagonist of this work is assigned to a unit that counts the number of electrical fittings, where he finds his father. The protagonist laughs loudly when he sees Idek having sex in this work, and his father is beaten for not giving up his (*) gold crown. Moshe the Beadle's warning was ignored despite being nearly killed by Gestapo in this work, before the Jews of Sighet are eventually sent off to concentration camps. For ten points, name this diary about life during the Holocaust by Elie Wiesel.

ANSWER: Night

19. This is the Euler characteristic of a Klein bottle, and the Dirac delta function is infinite at this value. This is the number of odd-degree vertices in an Eulerian graph as well as the number of planar solutions to the (*) utility problem. Quadratic equations with a negative discriminant have this many real solutions. Any number added to this number remains the same, and division by this number is undefined. For ten points, what is the only real number that is neither negative nor positive?

ANSWER: zero (prompt on "nought" or "none")

20. Dinoflagellates in red tides can produce brevetoxins, which are the "ladder" class of these compounds. Epoxides are highly strained ones of these molecules, which are easily cleaved by hydrohalic acids. Tetrahydrofuran, also called (*) oxolane, is a cyclic one of these molecules, while another class of rings consisting of these are called their "crown" type. The diethyl variety was once used as an anesthetic, and has the formula C-2-H-5-2-O. For ten points, name these organic compounds that consist of two carbon groups bonded to an oxygen atom?

ANSWER: ethers

TIEBREAKER:

One example of this literary form describes Ronald Reagan as a "triumph of the embalmer's art" and another example by this same author claims that "our government has many, many secrets." Those works in this genre, "Armageddon" and (*) "The End of Liberty", were written by Gore Vidal. "Supersize Me" is often considered an example of the documentary type of this form, while "Hamlet and His Problems" is more traditional. Nietzsche's "On Truth and Lies in a Nonmoral Sense" is an example of – for ten points – what literary form which students often write in five-paragraph structure?

ANSWER: essay

Round 11: Bonuses

1. Conventions and symbols for notating music have changed through the centuries. For ten points each,

[10] This clef is seen on the upper staff of the grand staff used for keyboard instruments. The spiral of this clef centers on the second line of the staff, and is primarily used for higher pitched instruments.

ANSWER: treble clef (accept G clef)

[10] This system of notating chords was prominent in the Baroque era. In this system, the basso continuo “realizes” the numbers which indicate the intervals and chords to play.

ANSWER: figured bass

[10] In the Medieval period, music was often notated in this system. Single notes were represented by boxes called “puncta” and placed on a four-line staff to indicate pitch. The shape of the line of music generally dictated how the music was to be phrased in this system.

ANSWER: neumatic notation (accept neumes)

2. During this period, Tokugawa Yoshinobu had given up rule over Japan. For ten points each:

[10] Name this period of modernization and industrialization in Japan that restored imperial rule and reinstated namesake Emperor and saw the fall of the Tokugawa Shogunate.

ANSWER: Meiji Restoration

[10] This document officially ceded power to Emperor Meiji whose third clause allowed the ability to pursue any occupation regardless of social standing.

ANSWER: Charter Oath

[10] In order to consolidate power under Meiji rule, remnants of this class of people were unable to act as the policing force of Japan and were eventually abolished.

ANSWER: Samurai

3. Waterspouts are one form of this weather phenomenon that occurs on a body of water. For ten points each:

[10] The fastest ever recorded winds on Earth have occurred in these structures of rapidly rotating air currents. They are associated with thunderstorms.

ANSWER: Tornado or Twister or Whirlwind or Cyclone

[10] This metric is used to classify tornadoes by the amount of damage they cause; the original goal of the designer of this scale was to serve as a bridge between a scale for wind speed and one for Mach number.

ANSWER: Fujita Scale

[10] This scale used in Britain for tornados extends the Beaufort Scale and describes windspeed.

ANSWER: TORRO Scale

4. For ten points each, answer some questions about the transformation of mechanical force.

[10] This simple machine is composed of a wheel around an axle and a rope around the wheel, often used to lift loads.

ANSWER: pulley

[10] A worm drive has two of these objects: one “spur” and one “helical”. Their teeth transfer torque.

ANSWER: gears

[10] This is the term for a system that transforms rotational motion to linear motion. They often involve an asymmetric disk rotating around an axis, pushing a lever as it rotates.

ANSWER: cam

5. Ethnic minorities in China were exempt from this policy. For ten points each:

[10] China recently ended this population control policy which was implemented in 1979 due to concern about the risk of overpopulation, despite declining birth rates at the time.

ANSWER: **One child** policy

[10] This is the belief that birth rates should be reduced. Some justifications for this belief include thinking that life is suffering or that global population growth is unsustainable.

ANSWER: **Antinatalism**

[10] Give this term for killing a baby. The one child policy led to a substantial increase in the occurrence of this practice.

ANSWER: **Infanticide** (do not accept or prompt on **abortion**)

6. During this war, Mahmud II sent his son Ibrahim Pasha to suppress the revolt in the Peloponnese. For ten points each:

[10] Name this war where the namesake nation rebelled against Ottoman Empire and won at the Battle of Navarino.

ANSWER: **Greek War of Independence**

[10] This society of revolutionaries founded by Nikolaos Skoufas, Emmanuil Xanthos and Athanasios Tsakalof initiated the Greek War of Independence under the leadership of Alexander Ypsilantis.

ANSWER: **Filiki Eteria**

[10] Three years after Greek War of Independence ended, Greece was finally recognized as an independent nation under this treaty named for the capital of the Byzantine empire.

ANSWER: **Treaty of Constantinople**

7. In this novel, the main character is sent off to the Besancon seminary after having an affair with the mayor's wife. For ten points each:

[10] Julien Sorel lives in Paris as an employee of the de la Mole family in this novel where he tries to kill Madame de Renal and is eventually sentenced to death.

ANSWER: **The Red and The Black**

[10] *The Red and The Black* was written by this French author who wrote about Fabrice del Dongo in *The Charterhouse of Parma*.

ANSWER: **Stendhal** (Accept Marie-Henri **Beyle**)

[10] Book II of *The Red and The Black* take place during this revolution which saw the overthrowing of Charles X and the ascent of Louis Philippe.

ANSWER: **July Revolution** (Accept **French Revolution of 1830**)

8. Many times, wind players in an orchestra will have to play a second instrument, or "double." For ten points each,

[10] Oboe players frequently double on this instrument, however, it is the only woodwind instrument present in Haydn's "Philosopher" Symphony. One of its more famous solos occurs in the "Largo" movement of Dvorak's *New World* Symphony, and is now known as "Going Home."

ANSWER: **English horn** or **cor anglais** (do not accept or prompt on "horn")

[10] This instrument is frequently doubled on by players of the lowest standard woodwind instrument. It is pitched exactly an octave lower than its standard counterpart, and one of its more famous uses is in Paul Dukas's "The Sorcerer's Apprentice."

ANSWER: **contrabassoon** (do not accept or prompt on "bassoon")

[10] The trio section of "Stars and Stripes Forever" contains an obbligato solo for this instrument. This instrument's Italian name is "ottavino," a reference to its high range, and are often doubled on by flute players.

ANSWER: **piccolo**

9. For ten points each, answer some questions about the system of Islam.

[10] Salat, or praying five times a day towards Mecca, is one of these five core tenets that dictate proper behavior for Muslims.

ANSWER: **Pillars** of Islam

[10] When in Mecca, salah involves praying facing this black granite structure which contains a meteorite which Muslims believe was placed there by Abraham and Ishmael.

ANSWER: **Kaaba**

[10] This Arabic word means the direction from one's current location to the Kaaba. This word can also be used to describe a wall which is perpendicular to the direction from one's current location to the Kaaba, such that a person facing the wall is facing the Kaaba.

ANSWER: **Qibla**

10. Pierre-Francois Bouchard discovered this artifact during a Napoleonic expedition through Egypt. For ten points each:

[10] This artefact, essential in transliterating hieroglyphics, is a decree from King Ptolemy V written in three languages.

ANSWER: **Rosetta Stone**

[10] This man transliterated hieroglyphics with the help of the Rosetta Stone. He helped to demonstrate that hieroglyphs can be either phonetic or ideographic.

ANSWER: Jean-Francois **Champollion**

[10] Champollion's first published academic paper was on the process of deciphering this language. It is the language in between Ancient Greek and Ancient Egyptian on the Rosetta Stone.

ANSWER: **Demotic**

11. In this play, the main character fantasizes about receiving a letter from a King in the title location. For ten points each:

[10] Amal is stricken with an incurable disease in this play where he dies before the royal physician and King actually visit him.

ANSWER: **The Post Office**

[10] *The Post Office* is a work by this poet who won the Nobel Prize for Literature in 1913 and wrote the poetry collection, *Gitanjali* (Gih-thahn-juh-lee).

ANSWER: Rabindranath **Tagore**

[10] All of Tagore's works were written in this language which shares it's name with a state of India.

ANSWER: **Bengali**

12. The rational type of this belief states that one must act in order to maximize self-interest. For ten points each:

[10] In philosophy, this is the belief that moral agents have an obligation to do what is best for that particular agent; in psychology, this is the belief that humans always act out of self-interest.

ANSWER: **Egoism**

[10] Egoism is often contrasted with this belief, that moral agents have a responsibility to help other moral agents. Volunteering and giving to charity are morally obligatory, according to this belief.

ANSWER: **Altruism**

[10] This adjective, when applied to altruism, indicates that there is a moral obligation to do what is best for others. Altruism described by this adjective would say it is morally wrong to give to a charity if there is a better charity to which one could give.

ANSWER: **Effective**

13. For ten points each, answer some questions on U.S. Federal Law Enforcement:

[10] This oldest law enforcement agency in the U.S. operates the Witness Protection Program and serves federal arrest warrants.

ANSWER: U.S. **Marshals** Service

[10] The Coast Guard was originally housed in this Cabinet-level department, but has since been moved to the Department of Homeland Security.

ANSWER: U.S. Department of the **Treasury**

[10] This other U.S. law enforcement agency, originally housed in the Treasury Department but now moved to the Department of Homeland Security, investigates counterfeiting.

ANSWER: U.S. **Secret Service**

14. In this region, Vladivostok is the eastern terminus of its namesake railway. For ten points each:

[10] Name this region in Central Russia whose northern region dense taiga and borders Kazakhstan, Mongolia, and China.

ANSWER: **Siberia**

[10] Many people consider Siberia to begin east of this mountain range. A river of the same name as this mountain range runs from the southern end of this mountain range to the Caspian Sea.

ANSWER: **Ural**

[10] This largest impact event in Earth's recorded history took place in sparsely populated Siberia; no one was harmed, though it flattened nearly 800 square miles of forest.

ANSWER: **Tunguska** Event

15. For ten points each, name some novels about slavery in America:

[10] Marie sells the title character to Simon Legree and dies before George can buy his freedom in this Harriet Beecher Stowe novel about escaped slaves.

ANSWER: **Uncle Tom's Cabin**

[10] Sethe is forced to kill her two year-old daughter rather than let her be captured in this magical realist novel inspired by the story of African-American slave Margaret Garner.

ANSWER: **Beloved**

[10] This 1967 William Styron novel discusses the title African-American slave waiting trial for his crime for the historic slave revolt he led in 1831 based on the first hand account of his lawyer, Thomas Gray.

ANSWER: **The Confessions of Nat Turner**

16. ThunderStones and adamantium are, unfortunately, not real. Answer some questions about fictional minerals for ten points each:

[10] This often green crystal comes from Superman's home planet, and exposure to it can cause him to lose his powers.

ANSWER: **kryptonite**

[10] This mineral, often called the "living crystal", was found on the planet Ilum and was used to power lightsabers. They were also stolen from Jedha for use in the Death Star.

ANSWER: **kyber**

[10] This term, once used at Lockheed Martin to refer to titanium, was used by James Cameron in the *Avatar* series for a mineral mined from Pandora.

ANSWER: **unobtainium**

17. These pieces of DNA are often circular and self replicating. For ten points each:

[10] Identify these small DNA molecules often found in bacteria. Ones that result in antibiotic resistance are often conferred between individual bacteria through conjugation.

ANSWER: **plasmids**

[10] The pGLO plasmid is widely utilized in biotechnology as it confers the gene for this protein isolated from jellyfish. As it performs a namesake action under black light, it is often used as a reporter gene.

ANSWER: **Green fluorescent protein** or **GFP**

[10] Golden rice is a strain of rice that was transformed using plasmids to express more beta-carotene, which is a precursor to this nutrient important in eye development.

ANSWER: **Vitamin A** (accept **retinol**, **retinoic acid** and **retinal**)

18. For ten points each: answer some questions about the formation of elements.

[10] First confirmed in 1936, this element is the lightest one without stable isotopes. It was predicted 70 years earlier by Mendelev as "eka-manganese".

ANSWER: **technetium** (prompt on "Tc")

[10] A “peak” named for this element exists in the universal abundances of the elements.

ANSWER: **iron** (prompt on “Fe”)

[10] This element, the most basic, is the starting point of all nuclear fusion in stars.

ANSWER: **hydrogen**

19. This artist showed her characteristic clothing style floating in a dystopian New York City in “My Dress Hangs There”.
For ten points each:

[10] Name this artist whose painting “My Grandparents, My Parents and I” shows her as a gigantic toddler holding her own bloodline.

ANSWER: Frida **Kahlo**

[10] Frida created a commemorative portrait for this actress, who committed suicide. In the portrait, this woman is shown falling from a building and then flat on the ground missing her right arm.

ANSWER: Dorothy **Hale**, accept **Suicide of Dorothy Hale**

[10] Frida Kahlo, as well as her husband Diego Rivera, was from this country. She painted “Four Inhabitants” of the country which include a skeleton symbolic of The Day of the Dead.

ANSWER: **Mexico**

20. In this work, the main character’s reunites with Valantoni even though he is now poor. For ten points each:

[10] Name this novel about Emily St Aubert’s love for nature and her eventual flight from the title castle with the help of Du Pont and the servants.

ANSWER: **The Mysteries of Udolpho**

[10] *The Mysteries of Udolpho* was written by this author who pioneered gothic novels and wrote about Vincentio di Vivaldi in her novel, *The Italian*.

ANSWER: Ann **Radcliffe**

[10] Emily climbs these mountains alongside her father on their journey across Europe which separate Spain and France.

ANSWER: **Pyrenees**

EXTRA:

This Greek goddess is portrayed carrying grain in Classical greek art. For ten points each:

[10] Hades burst from the ground and abducted this goddess whom had been gathering flowers at the time.

ANSWER: **Persephone** (Accept **Proserpina**) (pronounced per-sef-own-ee)

[10] Hermes came to try to take Persephone back from the underworld, but because she had eaten this food while she was there, Persephone would be required to spend a third of the year in the underworld with Hades.

ANSWER: **Pomegranate**

[10] Hades married Persephone, so when this man came to the underworld to kidnap and marry her, Hades trapped him and his friend Theseus. He’d previously helped Theseus capture Helen.

ANSWER: **Pirithous**