2019 Boston Latin Invitational Scholastic Series (BLISS) I Finals Round 13

Head Edited by Christy Jestin and Nicholas Weiske; Literature Edited by Kelin Carpenter; Written by Lucas Aho, Samuel Cheever, Kyler Hoogendorn Ecker, Aidan Goldberg, Jerry Han, Christy Jestin, David Liu, Kevin S. Qi, Sebastian Suarez, Joseph Terrey, Austin Wang, Nicholas Weiske, Alice Wu, Lily Yang, and Alex Young

Tossups

1. Racially tainted theories connect Aztec and Mayan ruins to this location. Some think that this location is on the island of Santorini. This location first appears in the philosophical works *Timaeus* and *Critias* where it wages war with Athens. Those works are by Plato, and the new version of this location names a work by Francis Bacon. This mythological location is visited by the (*) Nautilus in 20,000 Leagues Under the Sea. Mera is from this realm where Orm tries to become Ocean Master. For 10 points, name this underwater realm ruled by Arthur Curry or Aquaman.

Answer: Atlantis

2. This war saw the largest helicopter evacuation in history during Operation Frequent Wind. The Strategic Hamlet System was a propaganda coup to convince civilians that they were safe. Generals from this war include Frederick Weyand, Creighton Abrams, and William (*) Westmoreland. Sudden attacks like one that captured the imperial capital of Hue hurt American credibility during this war. That attack during the Lunar New Year was called the Tet Offensive. For 10 points, name this war won by Ho Chi Minh and the Communist North.

Answer: Vietnam War (or Second Indochina War)

3. A composer from this country created a musical portrait of Arthur Rubinstein in *Rudepoêma*. "The Little Train of the Caipira" is a movement in a piece inspired by a German Baroque composer and this country's folk music. Sixteen hyperboloid arcs extend up a cathedral near four bronze sculptures in one of several works by a certain architect in the planned capital. Bossa nova and (*) samba are music and dance styles from this country. This country is home to Heitor Villa-Lobos and Oscar Niemeyer. For 10 points, name this country home to a statue of Christ the Redeemer in Rio de Janeiro.

Answer: Federative Republic of Brazil

4. This algorithm was invented by Manhattan Project scientist John von Neumann in 1945 and is more efficient than most other procedures when dealing with large workloads. Although this algorithm requires additional space to be allocated over the course of its runtime, the O (read as "big oh") decrease to O(n log n) (read as "big oh of en log en") and reduced number of (*) comparisons generally justifies the usage of this technique. The concept that makes this algorithm possible is recursive combination of two previously sorted lists. For 10 points, name this type of sorting algorithm that employs a divide-and-conquer strategy.

Answer: mergesort

5. One of these animals is controlled by a hero in the game Darkest Dungeon and attacks enemies, while Interceptor is one in Final Fantasy VI. One of these animals in the Fallout series has a child who can be found upon his death, and his unusual name includes the word meat. These animals titles a 2014 game published by Ubisoft which follows a hacker living in Chicago. The game (*) Undertale features a very annoying one of these animals. Parappa the Rapper is one of these animals. For 10 points, name this animal featured in the game Duck Hunt that laughs at the player when they miss their shot.

Answer: dogs

6. This author wrote about a poet replaced by a radio, a "cripple maker", and the fake dentist, Dr. Booshy. This author's allegory of Abrahamic religion includes strongmen and Arafa. A former barber plans to kill the pimp of his old lover but is beaten to death by British soldiers after he sees her flirting with them and throws a beer glass. Abbas and Hamida are from this author's (*) Midaq Alley. Yasin shares his father's hedonism, while Fahmy is an activist. This author of The Children of Gebelawi wrote about the al-Jawad family in the novels Palace Walk and Sugar Street. For 10 points, name this Egyptian author of the Cairo Trilogy.

Answer: Naguib Mahfouz

7. Dr. Georget asked this man to paint patients in the Salpêtrière mental asylum. Those portraits include A Man Suffering from Delusions of Military Command and Portrait of a Kleptomaniac. Four men in different bright colors ride racehorses in this artist's painting of the 1821 Epsom Derby. This man showed a soldier wielding a curved sword with his torso fully turned while on a rearing horse. This artist of The (*) Charging Chasseur showed an open sail and a black man on top of a human pyramid waving a red flag in his painting of a shipwrecked crew. For 10 points, name this French artist of The Raft of the Medusa.

Answer: **Theodore Gericault** (zhay-ree-Koh)

8. This man told Reuters he doesn't want to be in CM approval polls "so someone else gets a chance. Or else I'm just winning." This man rose in the aftermath of an earthquake that saw Keshubhai Patel step down. The death of 59 train passengers in Godhra preceded communal rioting with over 1,000 mostly Muslim deaths in 2002 under this former chaiwala or tea seller in (*) Gujarat. He was denied an American visa in 2005 as a result, but received one after defeating Rahul Gandhi in 2014. For 10 points, name this Trumpesque right wing Hindu Nationalist BJP politician and Prime Minister of India.

Answer: Narendra Damodardas Modi

9. This piece uses the double bass to play music from "Dance of the Sylphs". This piece includes a very slow version of *Galop Infernal* by Offenbach, while another section quotes "Twinkle Twinkle Little Star". Among other instruments, this piece calls for 2 violins, a flute, and a glass harmonica. In the "Fossils" movement, this piece uses a xylophone to quote a section from the composer's own (*) *Danse Macabre*. It's most famous section includes a cello melody depicting a bird gliding over water in "The Swan". For 10 points, name this Camille Saint-Saens suite with sections like "The Elephant".

Answer: The Carnival of the Animals (or Le Carnaval des Animaux)

10. In one work by this author, he argued that poetry is the "spontaneous overflow of powerful feelings". This poet ended one work with the lines "to me the meanest flower that blows can give thoughts that do often lie too deep for tears." This author's irregular (*) Pindaric ode is entitled *Imitations and Immortality*. This man also wrote a semi-autobiographical work called *The Prelude* written in blank verse. For 10 points, name this Romantic Age poet who collaborated with Samuel Taylor Coleridge on the *Lyrical Ballads*.

Answer: William Wordsworth

11. Gaspar and Miguel Corte-Real charted part of this island while looking for the Northwest Passage. Its indigenous people are called Beothuk and were colonized and replaced by English, French, and Mi'kmaq people from eastern Canada. L'Anse aux Meadows is a (*) Viking settlement on this island east of Quebec. In 1497, John Cabot visited this island with a capital at St. John's when he passed through

the Strait of Belle Isle. Leif Ericson supposedly discovered this island also called Vinland. For 10 points, name this island which forms a Canadian province with Labrador.

Answer: Newfoundland

12. In one story, Chimalman swallows an emerald to conceive this deity. This god went to Mictlan, or the underworld, and mixed the bones of the previous race with his own blood to create the fifth world of humans. After getting drunk and being tricked into sleeping with a celibate princess, his own sister, this deity either burned himself or sailed east from Tula on a (*) raft of snakes. This god represents the morning star and Venus. This twin of the dog headed Xolotl is enemies with Tezcatlipoca. Some say that Montezuma II mistook Hernan Cortes for this god. For 10 points, name this feathered serpent god in Aztec mythology.

Answer: **Quetzalcoatl**

13. France and Norway claimed Adelie Land and Queen Maud Land respectively on this island. Deception Island is an active volcano near this island. This island is divided into east and west sections by namesake mountains. This island's highest mountain is in the Ellsworth Mountains and is named (*) Vinson Massif. Mount Erebus is an active volcano on Ross Island near this region. This landmass borders the Weddell Sea, and it contains the Ross Ice Shelf. For 10 points, name this icy southernmost continent which contains the South Pole and penguins.

Answer: Antarctica

14. Aqua fortis was the alchemical name for this compound, but nowadays is used to denote a niche staining and polishing solution. The fuming version of this acid comes in red and white varieties. This acid is usually commercially available at a sixty-eight percent concentration due to an azeotrope forming at that level. The red fuming version is named due to the release of the red-brown gas (*) NO₂ (read as N-O-2) or nitrogen dioxide. It is mixed with hydrochloric acid in order to form aqua regia. For 10 points, name this nitrogen-containing mineral acid with formula HNO₃ (read as H-N-O-3).

Answer: <u>nitric acid</u> (accept <u>HNO</u>₃ (read as H-N-O-3) before mention)

15. During Operation Snow White, followers of this religion tried to remove government records about this religion. Followers try to gain control over matter, energy, space, and time, or MEST, and they believe that they can advance along the Bridge to Total Freedom from Clear State to Operating Thetan. Members of this religion use E-meters in a process called (*) auditing. This religion believes that hydrogen bombs were placed in volcanoes by the alien Xenu. Tom Cruise is a famous member of this religion which is based on the book *Dianetics*. For 10 points, name this religion founded by L. Ron Hubbard.

Answer: Church of Scientology

16. This man reluctantly gave his support to Count Mikhail Loris-Melikov's plans for a limited constitution. Prince Gorchakov handled his negotiations at Paris in 1856. He is honored in Bulgaria as one of its founding fathers and established a system of local governance centered on the (*) Zemstvos. He was assassinated by a member of the Narodnaya Volya or People's Will, a revolutionary terrorist group. With US Secretary of State William Seward, this ruler chartered a treaty for the sale of Alaska. For 10 points, name this Russian Emperor who abolished serfdom in 1861.

Answer: Alexander II

17. In 1980, this novel was challenged by the school district of Verona, New York due to its supposed overly sexual content. The setting of this novel is a Northeastern prep school called Devon. This novel is based on an earlier short story by the same author, which shares its title with the name of one of the main characters. That short story is called (*) "Phineas". One character, Brinker Hadley, accuses the narrator of trying to murder his best friend. In this novel, Gene causes his best friend, Finny, to fall out of a tree. For 10 points, name this coming of age novel by John Knowles.

Answer: A Separate Peace

18. The most common variety of this technique uses SYBR ("cyber") Green, and other varieties include touchdown. Magnesium cations are used to stabilize the product of this technique. An enzyme from the bacterium *Thermus aquaticus* is used in this technique. Temperature changes occur in a thermo-cooler during the (*) annealing, denaturation, and elongation steps of this technique. This technique created by Kary Mullis uses the Taq polymerase. For 10 points, name this lab technique used to amplify sections of DNA.

Answer: PCR or polymerase chain reaction

19. The protagonist and narrator of this work follows his dad's suggestions and kills a cat. That child becomes an alcoholic by age 6 and is intrigued by the story of *Bluebeard and His Seven Wives*. He later gives a controversial valedictorian speech and is forced to quit his job at an optical shop. The protagonist also borrows Falk's library card, and he walks out of the trial of Ross. The narrator is forced to leave the (*) May Day Parade. In the second half of this work, the narrator moves north and joins the Communist Party. This work begins by explaining how the narrator accidentally burnt down the family house as a child. For 10 points, name this autobiographical work by Richard Wright.

Answer: **Black Boy** (anti-prompt on **American Hunger**)

20. This thinker described a certain movement as "man's emergence from his self-imposed immaturity". This thinker of What is Enlightenment? wrote that he was inspired by David Hume to awake from his "dogmatic slumber". This thinker considered the field of aesthetics in his Critique of Judgement. This thinker used the equation (*) seven plus five equals twelve to support synthetic a priori arguments. His most famous argument asserts that ought implies can. For 10 points, name this philosopher who proposed the categorical imperative and wrote Critique of Pure Reason.

Answer: Immanuel Kant

21. This beat variety of this quantity is calculated by taking the positive difference between this quantity for the two waves. For an open pipe, this fundamental version of this quantity equals velocity over four L where L is the pipe's length. Two versions of this quantity are related by changing velocity ratios in the Doppler effect. The energy of a photon is (*) Planck's constant multiplied by this quantity. This quantity is multiplied by wavelength to find the velocity of a wave. For 10 points, the inverse second or the hertz is the SI unit of what quantity that measures how often something occurs in a given time frame? Answer: frequency

Bonuses

- 1. Order is good. For 10 points each:
 - a. Humans belong to this order, which derives its name from the Latin for first. Other members of this order include apes, monkeys, and lemurs.

Answer: **primates** or **primata**

b. Platypi belong to this order, whose name refers to an opening called the cloaca. The only other members of this order are four species of echidna or spiny anteater.

Answer: monotremes or monotremata

c. Bats belong to this order, whose name means hand wing in Greek. All members of this order can fly, and it makes up twenty percent of living mammal species.

Answer: chiroptera

- 2. Name the following amendments to the United States Constitution. For 10 points each:
 - a. Despite being submitted in 1789, this amendment was not officially passed until more than two hundred years later. It prohibits laws about the salary of Congressmen from taking effect until after the next election.

Answer: The Twenty-seventh Amendment to the United States Constitution (or Amendment XXVII)

b. This amendment outlines the procedure for filling vacancies in Executive positions. This amendment also discusses scenarios where the President is unfit to serve.

Answer: The Twenty-fifth Amendment to the United States Constitution (or Amendment XXI)

c. While the twentieth amendment repealed the nationwide prohibition of alcohol, this state continued to ban the consumption of alcohol until 1966. This state has its capital in Jackson.

Answer: Mississippi

- 3. Chemistry isn't always straightforward. Answer some questions about some not so straight compounds. For 10 points each:
 - a. This name refers to compounds that are cyclic and planar. These compounds often feature a system of alternating double bonds.

Answer: aromatic compounds

b. Name this simplest aromatic hydrocarbon. This ring shaped compound has formula C_6H_6 (read as "C-6-H-6").

Answer: **benzene**

c. In benzene, the pi electrons are described by this adjective. This adjective means that they are associated with a system of resonance rather than one bond.

Answer: delocalized

- 4. All people must die. For 10 points each:
 - a. In Catholicism, this type of mass is said at funerals. This word also refers to the namesake musical compositions used during funeral masses.

Answer: **requiem** mass

b. Hindu widows used to perform this ritual on the funeral pyres of their husbands. This term comes from the name of a woman who self immolated after her father's disapproval of her husband, Shiva.

Answer: sati

c. This Islamic funeral prayer ritual involves 4 takbirs (tuhk-beers) but no bowing or prostration.

Answer: salat al-janazah

- 5. Necklaces have been used as a symbols of wealth and to make personal statements. For 10 points each:
 - a. This French author wrote the short story "The Necklace". Some of his other works include "Boule de Suif" and "The Horla".

Answer: Guy de Maupassant

b. People wore cylinder seals as necklaces in this ancient society, whose name translates to "land between rivers". It was located in modern-day Iraq and Kuwait.

Answer: Mesopotamia

c. This white-colored metal with the atomic number 78 is often used in necklaces and other forms of jewelry. It is very non-reactive and is resistant to corrosion.

Answer: platinum

- 6. This Roman poet was exiled to Tomi for what he called "a poem and a mistake". For 10 points each:
 - a. Name this poet who compiled the stories of mythological characters like Hyacinthus, Pygmalion, and Pyramus and Thisbe in his magnum opus.

Answer: Publius Ovidius Naso

b. Those characters appear in this Ovid work which details transformations.

Answer: Metamorphoses

c. Written in elegiac couplets, this Ovid work advises men on how to find and keep women and vice versa. Rather oddly, the advice for men is two books long, while the advice for women is only one book.

Answer: Ars Amatoria

- 7. Sometimes food tastes really good. For 10 points each:
 - a. This country's capital has the most Michelin starred restaurants in the world. Many of its stores have handcrafted fake plastic food called sampuru, and other oddities include square watermelons.

Answer: Japan

b. Like chicken paprikash, goulash is a meat based paprika stew from this country. This country on the Pannonian Plain is known for Tokaji wine and has a wine region named for Lake Balaton.

Answer: **<u>Hungary</u>** (or **<u>Magyarország</u>**)

c. This country's unique McDonalds burger included beetroot and an egg. This country home to the Southern Alps and the extinct Haast's eagle disputes the origin of the Pavlova cake with a very similar western neighbor.

Answer: New Zealand (or Aotearoa)

- 8. Answer the following about Edwards in the 100 Years' War. For 10 points each:
 - a. This naval battle off the coast of Flanders was a great victory over the French Navy for the English under Edward III.

Answer: Battle of Sluys or Battle of l'Ecluse

b. At this battle in Aquitaine, veterans from Crecy under Edward the Black Prince captured John II.

Answer: Battle of Poitiers

c. Edward of York was an English nobleman slain at this 1415 battle that saw England's smaller force under Henry V defeat the French mostly because of the superiority of longbows.

Answer: Battle of Agincourt

- 9. One of these animals named Ladon guarded the apples of the Hesperides. For 10 points each:
 - a. Name these fantastical creatures which often resemble large serpents or lizards, have wings, and breathe fire. Chinese *long* are an example of these creatures.

Answer: dragons

b. This Christian soldier saint is often depicted killing a dragon in Libya. In that story, he saves a princess about to be sacrificed. His namesake cross is the flag of England, where he is the patron saint.

Answer: St. George (or Georgios)

c. This Babylonian dragon like creature is given to Nabu by his father Marduk. This hybrid dragon was depicted on Ishtar Gate with several features resembling other animals like eagle talons.

Answer: mushussu or sirrush

- 10. Snow is amazing. For 10 points each:
 - a. This Flemish painter's *Hunters in the Snow* shows men and dogs coming down and a hill and children ice-skating. His other depictions of village life include *The Peasant Wedding*.

Answer: Pieter <u>Bruegel</u> the <u>Elder</u> (or Pieter <u>Bruegel I</u>; prompt on partial answer)

b. This woman's *Sugaring Off* shows people making candy from maple sugar in the snow. This woman is known for depicting rural life in America.

Answer: Grandma Moses (or Anna Mary Robertson Moses)

c. This painter showed fractured ice and snow in his *Sea of Ice*. He is better known for depicting a man with a cane along with sharp rocks and distant mountains.

Answer: Caspar David Friedrich

- 11. This novel's protagonist writes a series of letters to God. For 10 points each:
 - a. In this novel, the protagonist Celie is repeatedly raped and beaten by her father, Alphonso.

Answer: The Color Purple

b. This American novelist, whose other work includes *Meridian* and *The Third Life of Grange Copeland*, won the 1983 Pulitzer Prize for Fiction with *The Color Purple*.

Answer: Alice Walker

c. In *The Color Purple*, this woman develops a sexual relationship with Celie. This jazz singer is originally introduced as the mistress of Mister, Celie's husband.

Answer: **Shug Avery** (accept either underlined portion)

- 12. These three pieces for piano in 3/4 time are named for an ancient Greek athletic festival. For 10 points each:
 - a. Name this slow pieces which are played "painfully", "sadly", and "seriously". The first of these pieces begins by alternating between G and D major seventh chords.

Answer: *Gymnopedies* (jim-noh-Pee-dees)

b. *Gymnopedies* were written by this French composer of *Gnossiennes* (gi-noh-see-En) and *Desiccated Embryos*.

Answer: Erik Satie (or Éric Alfred Leslie Satie)

c. Satie composed this piece after listening to an opera by Debussy. This suite titled for a fruit actually has 7 pieces, but only the ones in the middle have the title name.

Answer: <u>Three Pieces in the Form of a Pear or Three Pieces in the Shape of a Pear (or Three Pear Shaped Pieces or Trois morceaux en forme de poire</u>; accept other appropriate English translations)

- 13. Answer the following questions about the Roman Triumvirates. For 10 points each:
 - a. Name this member of the first Triumvirate who died at Carrhae with his son and was the wealthiest man in Rome.

Answer: Marcus Licinius Crassus (do not prompt on partial answers)

b. Name this battle at which Octavian defeated Mark Antony and Cleopatra, making him the undeniable ruler of the Roman empire.

Answer: **Actium**

c. Name the advisor to Octavian who was instrumental in his many victories including at Actium. This man married Octavian's daughter Julia after the death of her husband, Marcellus.

Answer: Marcus Vipsanius <u>Agrippa</u> (do not prompt on partial answers)

- 14. Lasers have played an important role in the scientific discoveries of the last century. For 10 points each:
 - a. Name this American physicist who is noted for his contributions to the fields of quantum electronics and his work with the maser and the laser.

Answer: Charles H. Townes

b. Charles Townes was the head of the NASA Science Advisory committee from 1966 to 1970 during this lunar landing program.

Answer: **Apollo** (anti-prompt on specific numbers)

c. This American scientist won a Nobel prize for using laser cooling to trap atoms and reach temperatures of 43 micro Kelvins.

Answer: Steven Chu

- 15. This man mentioned disasters in the consecutive years of 1665 and 1666. For 10 points each:
 - a. Name this 17th century British MP who wrote about several important events in British history, including the Great Plague of 1665 and the Great Fire of London in 1666.

Answer: Samuel Pepys

b. Pepys wrote in this genre. Anne Frank wrote perhaps the most famous work in this genre.

Answer: **diary** (or **journal**)

c. In addition to being a Member of Parliament, Pepys is often credited with reforming the Royal Navy as part of his time serving in this office. Pepys last held this office from 1684-1688.

Answer: Secretary to the Admiralty

- 16. In an ideal state, these devices have a value of zero for resistance on one side, and infinity on the other. For 10 points each:
 - a. Name these devices which only allow current to flow in one direction.

Answer: diodes

b. Diodes are these types of devices which are intermediate between insulators and conductors.

Answer: **semiconductors**

c. This type of diode is similar to a Zener diode. At a certain reverse bias voltage, this type of diode will experience a namesake breakdown and switch direction.

Answer: avalanche diode

- 17. Answer some questions about the Food Network. For 10 points each:
 - a. This American show is hosted by the Chairman. It centers around chefs competing to make the best meal from one secret ingredient, which is revealed by the Chairman saying "Allez Cuisine."

Answer: <u>Iron Chef</u> America (or <u>Iron Chef</u> Showdown)

b. This man has hosted multiple *Iron Chef* episodes, as well as every *Iron Chef Gauntlet* episode. He is also the host of *Feasting on Asphalt, Good Eats,* and *Cutthroat Kitchen*.

Answer: Alton Brown

c. This Iron Chef with a southwestern style cannot be beaten, as one of his own shows challenges competitors to do. He is also known for *3 Days to Open* and *Worst Cooks in America* Seasons.

Answer: Robert William "Bobby" Flav

18. There have been many Jewish philosophers over the years. For 10 points each:

a. This Dutch thinker was attacked for his pantheistic beliefs. He wrote *Ethics* and *Tractatus Theologico-Politicus*.

Answer: Baruch Spinoza (or Benedict de Spinoza or Benedito de Espinosa)

b. This Spanish thinker tried to reconcile Aristotelian thought with Judaism in his *The Guide for the Perplexed*.

Answer: Moses Maimonides (or Moses ben Maimon or Rambam)

c. This Jewish philosopher translated the Hebrew Bible into German. He is best known for a theory which contrasts two relationships with God, namely I-It and I-Thou (read as "i, it and i, thou")

Answer: Martin Buber

- 19. This novel features a character often called 007. For 10 points each:
 - a. This novel was the first to introduce MI6 agent James Bond, and featured such characters as Vesper Lynd and Felix Leiter.

Answer: Casino Royale

b. *Casino Royale* was the first novel by this British novelist, who based his depiction of James Bond on his own experiences working in British Naval Intelligence during WWII.

Answer: Ian Fleming

c. This Soviet counterintelligence agency opposes James Bond in *Casino Royale*. It was loosely based on a real Soviet counterintelligence agency of the same name, which was active from 1943 to 1946.

Answer: SMERSH

- 20. The Iberian peninsula has a long and rich history. For 10 points each:
 - a. The Umayyad Caliphate ruled much of Iberia under this province.

Answer: Al-Andalus

b. This rebel against Rome is a symbol of Portuguese nationality and independence.

Answer: Viriathus

c. This Spanish king came to rule much of Europe and the New World. His son, Philip II, created the Spanish Armada.

Answer: Charles V, Holy Roman Emperor or Charles I of Spain (prompt on Charles)

- 21. Pencil and paper ready. You will have 10 seconds per bonus. Consider a 3 on 3 basketball tournament. For 10 points each:
 - a. If there are 9 teams in a round robin tournament, how many rounds are required? Please note that a bye for one team is still a game for every other, and a bye still counts as a round for that team.

Answer: **9** or **nine** [Each team must play against each of the other teams and also have one bye for 9 total rounds]

b. If there are 5 players total on a team, how many possible 3 player lineups does it have?

Answer: 10 or ten [Choosing 3 players from 5 is $5!/(3!\square 2!)=(5\square 4\square 3)/(3\square 2\square 1)=10$]

c. If every player on the 3 person lineup must touch the ball at least twice in a certain play, and the 2nd player to touch the ball must shoot, at least how many passes are required before the shot?

Answer: 5 or five [To minimize passes, the last pass should be to the 2nd player: 1-2-3-1-3-2]