Berus-Lie Academic Spring Tournament (BLAST)

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Packet 12: Are Anson's parents named Andad and Anmom?

Tossups

1. This thinker wrote the foreword of the SPK's *Turn Illness Into a Weapon*. In the preface to *another* author's book, this thinker describes how the "mother country" plants a "native bourgeoisie" and says that "violence...can heal the wounds that it has inflicted." This author wrote the preface to *The Wretched of the Earth* by Frantz Fanon. This thinker argued that (*) "existence precedes essence" in a book he wrote that he later criticized himself, called "Existentialism is a Humanism." This thinker described how people yearn to go from "being-for-itself" to "being-in-itself," using a self-deceiving waiter to illustrate his concept of "bad faith." For 10 points, name this philosopher who wrote *Being and Nothingness*.

ANSWER: Jean-Paul Sartre < DP, Philosophy>

2. One variant of this phenomenon which typically involves members of Araneae and Formicidae is known as myrmecomorphy. Pseudocopulation between orchids and bees occurs due to one form of this phenomenon. One variety of this phenomenon can be seen in the red, yellow, and black bands of king snakes and (*) coral snakes. An octopus species named for its ability to use this phenomenon can change its morphology in order to attract and devour its prey. Another kind of this phenomenon is seen in the aposematic coloration of viceroy and monarch butterflies. For 10 points, name this phenomenon that has Müllerian and Batesian ["bah-TEE-shun"] forms and occurs when one species imitates another.

ANSWER: mimicry [accept specific types of mimicry such as Müllerian or Batesian until read] <ARB, Biology>

- 3. In one story by this author, the title woman is "cured" after being impregnated by an unknown man. In a story by this author, a girl keeps the candies that a professor gives her, but throws them out after he sends her a picture of his family, who are safe. In a story by this author, a man admits that he cheated on his Oriental Civilization exam, cut out a fashion magazine page featuring a woman advertising stockings, and finally that he checked the sex of their (*) stillborn child, while talking with his wife during a series of power outages. Rohin asks Miranda about the definition of the title word in this author's story "Sexy." For 10 points, name this Indian-American author who included "A Temporary Matter" in her collection *Interpreter of Maladies*. ANSWER: Jhumpa Lahiri <ML, Short Fiction>
- 4. In a painting based on the Wandering Jew legend, this artist stands next to his servant Calas while greeting a figure based on his patron; although named *The Meeting*, that painting was ridiculed by critics as "Bonjour, Monsieur [this artist]." This artist stares directly at the viewer with open eyes while grasping his hair in a self-portrait titled *The Desperate Man*. A white cat on the floor angles its head toward the artist in a painting exhibited at a pavilion he opened with his patron, (*) Alfred Bruyas; that painting is titled *The Artist's Studio*. The death of this artist's great-uncle is recorded in a painting depicting a funeral procession in the title French city. For 10 points, name this artist of *A Burial at Ornans*, who depicted two peasants in his *The Stone Breakers*. ANSWER: Gustave Courbet <KM, Visual Fine Arts>

5. The McMahon-Hussein Correspondences sought to decide how to split up the territory gained following this war. During this conflict, Paul von Lettow-Vorbeck was commended for a successful defensive campaign conducted with limited resources. A raid on the Suez Canal during this conflict was foiled in part by the defense of the Australian Light Horse regiments, who later played a key role during the (*) Sinai and Palestine campaigns. Assaults on the Hejaz Railway and the port of Aqaba during this war were chronicled in the Seven Pillars of Wisdom. During this war, Bedouin forces were assisted by T.E. Lawrence. For 10 points, name this war, where the Ottoman Empire assisted the Central Powers.

ANSWER: World War I [accept First World War, the Great War, "The War to End All Wars"] <CS, World History>

6. An algorithm that acts on these types of files is the Roberts cross operator, whose purpose is also achieved by the Sobel and Canny operators. These files are the inputs to VGG ["V-G-G"] convolutional neural networks. Bicubic and bilinear interpolation typically produce smoother outputs than the nearest-neighbor algorithm for changing the sizes of these files. Bitmaps are examples of these files that use (*) rasters, in contrast to those that use vector graphics. The subunits of these files can be represented in HSV. The simplest implementations of these files contain two-dimensional arrays of RGB and opacity values. For 10 points, name these files containing collections of pixels that include JPEGs ["JAY-pegs"] and PNGs.

ANSWER: images [accept equivalents such as pictures or specific types such as PNGs before mention; prompt on graphics before mentioned] <SL, Computer Science>

7. This poem includes the images of a "slow moon" climbing and lights that "begin to twinkle from the rocks." This poem's speaker describes a "most blameless" character as "decent not to fail / In offices of tenderness" and "centred in the sphere / Of common duties." The speaker of this poem laments "How dull it is to pause, to make an end, / To rust unburnish'd, not to shine in use!" That speaker of this poem yearns to (*) "follow knowledge like a sinking star" and says "Come, my friends, / 'Tis not too late to seek a newer world." This poem describes men "Made weak by time and fate, but strong in will / To strive, to seek, to find, and not to yield." For 10 points, name this poem by Alfred, Lord Tennyson about a king of Ithaca.

ANSWER: "Ulvsses" <KL, Non-Epic Poetry>

8. In this opera, a virtuosic violin solo accompanies a choir repeating the rising notes [read slowly] C, D-flat, E, F-sharp, G-sharp. The brief prologue of this opera is played by a solo electric organ. The title character of this opera is represented by a solo violin. Soprano saxophone and bass clarinet accompany a poem in this opera's "I Feel the Earth Move." After this opera's prologue, two sitting characters call out (*) numbers. The final scene of this opera is titled "Spaceship." This opera is connected by five "knee plays." Along with Satyagraha and Akhnaten, this opera makes up its composer's Portrait Trilogy. For 10 points, name this minimalist opera about the title scientist, by Philip Glass.

ANSWER: Einstein on the Beach < ML, Other Auditory Arts>

9. An opposition leader referred to this politician's government as a "zombie government" in January 2019. In an earlier post, this politician had imposed a ban on the stimulant drug *khat*, and this politician's foreign secretary resigned following the publication of the Chequers Plan. As part of a confidence and supply agreement, this leader negotiated support from her country's (*) Democratic Unionist Party during her second term. This leader announced her intention to resign after her Brexit Withdrawal Agreement was defeated by the widest margin in British history. For 10 points, name this Conservative prime minister of the United Kingdom who preceded Boris Johnson.

ANSWER: Theresa Mary May < GP, Current Events>

- 10. Frederick II, Holy Roman Emperor, created the Constitutions of Melfi to govern this region. Rodney Mundy sent the HMS Hannibal to assist in an invasion of this region. While in this region, Muhammad al-Idrisi created a massive map named after one of this region's rulers. Peter III of Aragon claimed control over this island after a (*) 1282 rebellion overthrew Charles of Anjou on it. That rebellion is known as this island's namesake "Vespers." Later in history, Giuseppi Garibaldi would lead the "Expedition of the Thousand" against this island. For 10 points, name this Italian island which was once merged with the Kingdom of Naples.

 ANSWER: Sicily < HP, European History>
- 11. In this novel, a girl slides a note reading "YOUR DAYS ARE OVER, CASANOVA" under the protagonist's door. Later, those two characters are excused from a hearing led by Farodia Rassool and Manas Mathabane. The protagonist of this novel, who composes an opera about Byron's love life, has to "save the honor" of dogs killed at Bev Shaw's animal clinic by bringing them to an incinerator. The protagonist of this novel has to wear a white skullcap after he is (*) lit on fire by a group of three men. The protagonist of this story loses his job as a communications professor because of an affair with Melanie Isaacs, after which he visits his daughter Lucy's farm. David Lurie experiences the title feeling in, for 10 points, what novel by J.M. Coetzee?

ANSWER: <u>Disgrace</u> [do not accept or prompt on "Disgraced"] < KM, Long Fiction>

12. A judge from this family upheld a law permitting only residents of New Jersey from gathering oysters and clams in *Corfield v. Coryell*. That man from this family also served as the first President of the American Colonization Society. A letter by John Armstrong sparked a failed mutiny against a general with this name known as the Newburgh Conspiracy. The chef (*) Hercules was owned by this family and was freed after a member of this family died in 1799. Another man with this last name lost the Battle of Brandywine before enduring a harsh winter at Valley Forge. For 10 points, name this last name of Bushrod and George, the first president of the United States.

ANSWER: <u>Washington</u> [accept Bushrod <u>Washington</u>; accept George <u>Washington</u>] <MS, American History>

- 13. David Fisher proposed a skyscraper with rotating floors in this country known as the Da Vinci Tower. People would travel around in pods in the planned Masdar City in this country, which runs exclusively on renewable energy. This country hired Yousef Abdelky to create its opulent Sheikh Zayed Grand Mosque. Etihad Airlines is headquartered in this country's capital. (*) Nakheel, a property developer from this country, helped to create the Palm Jumeirah islands in one of this country's cities. That city also contains the world's tallest building, the Burj Khalifa. For 10 points, name this country whose largest city is Dubai. ANSWER: United Arab Emirates [prompt on Emirates] < GP, Geograph>
- 14. The partial derivative of this quantity with respect to temperature is equal to negative enthalpy over temperature squared. The standard reduction potential times -nF ["negative N F"] is equal to the standard change in this quantity. Chemical potential is defined to be the partial molar form of this quantity. The standard change in this quantity can be calculated by (*) subtracting temperature times entropy change from enthalpy change. At constant temperature and pressure, this is the maximum amount of work that can be done using the energy of the system. For 10 points, name this quantity, the change in which is negative for spontaneous chemical reactions.

ANSWER: Gibbs free energy [accept delta G] < CT, Chemistry>

- 15. Increasing returns to scale in infant industries is a key assumption to one theory of this phenomenon, which was developed by Paul Krugman. One model of this phenomenon that uses the 2x2x2 model fails to predict capital intensity in Leontief's paradox. That model, which takes into account capital and labor as factors of production, is named for (*) Hecksher and Ohlin. This phenomenon occurs when one party has lower opportunity costs for one product in comparative advantage, which David Ricardo illustrated using wine and cloth produced in England and Portugal. For 10 points, name this phenomenon in which goods are exchanged. ANSWER: international trade <SL, Social Science>
- 16. The shi, or scholar gentry, occupied the highest rank in this dynasty's fengjian feudal system. A revered regent during this dynasty put down the Rebellion of the Three Guards and is commonly known as the "Duke of" this dynasty. This dynasty's King Wu defeated the previous dynasty at the Battle of Muye. Wu was also the son of King Weng, who is credited with being this dynasty's first emperor. A history of the state of (*) Lu was written during this dynasty. Mozi and Confucius first came to prominence during a period in this dynasty known as the Spring and Autumn Period. For 10 points, name this Chinese dynasty which succeeded the Shang Dynasty.

ANSWER: Zhou ["joh"] Dynasty <HP, World History>

17. The très modéré ["tray mod-ay-ray"] first movement of an orchestral rhapsody based on this country begins with the descending theme [read slowly] F E D C-sharp, which is repeated throughout. Themes from this country also inspired that composer for the fourth movement of his piano suite Miroirs ["meer-wahr"]. **Édouard Lalo composed a five-movement piece for (*)** violin and orchestra titled after this country. Pizzicato C's played by the violins begin another rhapsody titled for this country by Emmanuel Chabrier [sha-bree-yay]. Another piece inspired by this country contains a snare drum ostinato played throughout. For 10 points, name this European country that inspired Maurice Ravel's Alborada del gracioso and Boléro.

ANSWER: Spain [accept Rapsodie espagnole; accept Symphonie espagnole; accept España] < KM, Auditory Fine Arts>

- 18. At the end of this play, one character praises another who has come "into his manhood...Kind of like a rainbow after the rain." A character in this play emphasizes "the part that's already living" as she evaluates her daughter's decision to get an abortion. A woman in this play loudly shouts a phrase which "[welcomes] the men back to the village" while her brother, who she calls "Flaming Spear," gives a speech. Characters from this play encounter Bev and Russ in a spinoff play by (*) Bruce Norris. Joseph Asagai appears in this play, in which the central family receives a \$10,000 insurance check and tries to move into Clybourne Park. Ruth, Walter, and Beneatha Younger appear in, for 10 points, what play set in Chicago by Lorraine Hansberry?
- ANSWER: A Raisin in the Sun <DP, Drama>
- 19. The Synod of Whitby was convened to establish the date of this holiday in the Kingdom of Northumbria. In Orthodox churches, services for this holiday include the reading aloud of a homily by John Chrysostom and the lighting of a "new fire." The Exsultet is sung during services for this holiday in Western Christianity. A (*) computus is often used to calculate this holiday's date. Ash Wednesday marks the start of 40 days of penance before this holiday called Lent. This holiday is associated with the Jewish holiday of Passover. The resurrection of Jesus Christ is commemorated by, for 10 points, what Christian holiday?

ANSWER: Easter Sunday [accept Pascha] <GP, Religion>

20. A one-loop correction to this system in quantum electrodynamics gives rise to an effect confirmed by Retherford and its namesake, Lamb. Using a spherically symmetric potential which is proportional to the inverse of the radius, the Schrödinger equation is exactly solvable for this system. The energy levels of this system are exactly inversely proportional to the square of the principal quantum number according to the (*) Rydberg formula. The Bohr radius gives the most likely distance between the two components of this system. In its ground state, the lighter particle in this system is located in the 1s subshell. For 10 points, name this system which consists of a single electron and proton and is the lightest atom.

ANSWER: **hydrogen** atom [or **H**] <SL, Physics>

Bonuses

- 1. Answer some things about Martin O'Malley, for 10 points each:
- [10] Martin O'Malley was the former governor of this U.S. state, where he was previously mayor of Baltimore for eight years. The current governor of this state is Larry Hogan.

ANSWER: **Maryland** [accept **MD**]

[10] The New-York based doctor Martin O'Malley performed reconstructive surgery on this athlete after he tore his Achilles in the 2019 NBA finals. In 2013, this athlete donated one million dollars to the American Red Cross for the victims of the Moore tornado.

ANSWER: Kevin **Durant** [accept **KD**]

[10] The phrase "the state has no business in the bedrooms of the nation" was coined by journalist Martin O'Malley. However, it was popularized by this world leader, when he decriminalized homosexuality in his nation in 1967.

ANSWER: Pierre Trudeau [prompt on Trudeau] <SZ, Other>

- 2. This country's penal code used "wrecking" as an umbrella term to describe any acts of sabotage or lack of cooperation with the government. For 10 points each:
- [10] Name this country, where Allan Monkhouse and five other employees of Metropolitan-Vickers were tried on trumped of charges of espionage in a highly-covered trial.

ANSWER: **Soviet Union** [accept **U**nion of **S**oviet **S**ocialist **S**tates or **CCCP**]

[10] Many of the Soviet show trials were supported by this official newspaper of the Soviet Union, whose name translates to "truth." The initial charges of the men convicted in the 1930 Industrial Party Trial were published in this newspaper.

ANSWER: Pravda

[10] In the Trial of the Sixteen, the NKVD staged a trial for men who allegedly conspired with the Nazis in this country. Nazi Germany invaded this country on September 1st, 1939.

ANSWER: **Poland** <HP, European History>

- 3. Mohr's salt is a good source of ferrous ions because it can be stored for a long time. For 10 points each:
- [10] Ferrous ions are this element in the +2 oxidation state.

ANSWER: **iron** [prompt on Fe]

[10] In water, Mohr's salt forms an aquo complex with this molecular geometry because of its six water ligands.

ANSWER: octahedral

[10] This theory explains octahedral symmetry with d-orbital splitting into t-sub-2g and e-sub-g orbitals. A theory named for ligands combines this theory with MO theory.

ANSWER: <u>crystal field</u> theory [or <u>CFT</u>, prompt on <u>ligand field</u> theory or <u>LFT</u>] <KL, Chemistry>

- 4. Draupadi falls before reaching heaven because while she claimed she loved all the Pandava brothers equally, she loved this one the most. For 10 points each:
- [10] Name this archer, who is instructed to follow his dharma by his charioteer and cousin Krishna in the Bhagavad Gita.

ANSWER: Arjuna

[10] Arjuna and the Pandava brothers appear in this great Indian epic, which also includes the Bhagavad Gita. This epic, authored by Vyasa, centers on the long events leading up to the Kurukshetra War and its aftermath.

ANSWER: Mahabharata

[10] This man was the only equal of Arjuna in sporting, skills, and combat, and his name comes from the golden earrings he was born with. Arjuna kills this son of Surya when he gets out of his chariot to dislodge a stuck wheel.

ANSWER: Karna [accept Vasusena, Anga-Raja, Sutaputra, or Radheya] <AN, Mythology>

- 5. For 10 points each, answer some questions about takes on religion in the future in science fiction stories:
- [10] In a story by this author, Father Peregrine and Father Stone travel to Mars in an attempt to convert the title "Fire Balloons" to Christianity. Other stories about Mars are collected in his *The Martian Chronicles*.

ANSWER: Ray Bradbury

[10] In this author's novel *Parable of the Sower*, the "hyperempathetic" Lauren creates the religion of Earthseed, which likens humans to seeds meant "to take root among the stars." Dana travels back in time to a slave plantation in her novel *Kindred*.

ANSWER: Octavia Estelle Butler

[10] In this novel, residents of the fictitious San Lorenzo follow Bokononism, which encourages its practitioners to believe in "harmless untruths." The narrator of this novel meets Bokonon after the outbreak of Ice-9 kills the inhabitants of San Lorenzo.

ANSWER: *Cat's Cradle* [by Kurt Vonnegut] <HP, Long Fiction>

- 6. The ruling in this case was overturned by the Eleventh Amendment. For 10 points each:
- [10] Name this first significant Supreme Court case, which ruled that the federal court had the power to hear cases in which private citizens sued states.

ANSWER: *Chisholm* v. *Georgia* [prompt on <u>Georgia</u> alone]

[10] The decision in *Chisholm v. Georgia* was overseen by this first Chief Justice of the United States. This man also names a 1794 treaty which improved relations with Great Britain.

ANSWER: John Jay

[10] By ruling on the conduct of states, the court in *Chisholm v. Georgia* invoked *this* legal doctrine. John Marshall later used this doctrine to declare the Judiciary Act of 1789 unconstitutional.

ANSWER: <u>judicial review</u> [prompt on <u>review</u>] <CS, American History>

- 7. The second movement of Borodin's Second Symphony starts in this time signature before moving into a 6/4 [six four] trio section. For 10 points each:
- [10] Give this unusual time signature, also used in the seventh Enigma Variation. This fast time signature essentially makes every beat stressed.

ANSWER: 1/1 ["one one"] time

[10] This composer wrote the *Enigma Variations*. His first *Pomp and Circumstance* march is often played at graduations.

ANSWER: Edward Elgar

[10] The aforementioned Borodin movement is this type of piece, from the Italian for "joke," which replaced the minuet in the symphonic form.

ANSWER: <u>scherzo</u> ["scare-tzo"] <WZ, Auditory Fine Arts>

- 8. The narrator defines this word as "a Carriacou name for women who work together as friends and lovers," referencing the Grenadian island from which her mother emigrated. For 10 points each:
- [10] Name this four-letter word that titles a "biomythography" by Audre Lorde. In that work titled for this word, Lorde asks, "To whom do I owe the woman that I have become?"

ANSWER: Zami [accept Zami: A New Spelling of My Name]

[10] Zami is exemplary of Audre Lorde's "womanism," a term coined by this author. In a novel by this author, a blues singer liberates the protagonist from her mistreatment by Mister.

ANSWER: Alice Walker

[10] The aforementioned Alice Walker novel is this one, which is framed through Celie's letters to God. In this novel, Celie thinks God would be pissed off "if you walk by [the title thing] in a field somewhere and don't notice it."

ANSWER: The Color Purple < DP, Long Fiction>

- 9. According to Surah Al-Alaq, Allah created mankind out of this substance. For 10 points each:
- [10] Name this substance, which is drained out of animals in a special method of preparing meat in Islam known as *dhabihah*. Muslims are not allowed to ingest this substance as per Surah al-Ma'idah ["al mah-ee-dah"].

ANSWER: blood

[10] Blood must be removed from animals in order to meet this dietary restriction. As part of this Islamic dietary restriction, Muslims are not allowed to eat pork.

ANSWER: halal

[10] Most Muslims condemn the practice of *tatbir* during this holiday due to its violence. Participants in this Shiite holiday perform *tatbir*, or self-flagellation, to honor the martyrdom of Husayn.

ANSWER: Ashura <HP, Religion>

- 10. Earnshaw's theorem states that a collection of these things can't be in a stationary equilibrium. For 10 points each:
- [10] Name these theoretical objects whose electric potential falls off as 1/r at all values of r.

ANSWER: **point charge**s [prompt on partial answer; prompt on <u>electric monopole</u>]

[10] This law states that the force of an electrostatic interaction is proportional to the product of the two charges divided by the distance squared. The French physicist who names it also names the SI unit of electric charge.

ANSWER: Coulomb's law

[10] The proportionality constant in Coulomb's law is equal to one over 4 pi times this constant, which is *contrasted* with a quantity denoted mu-naught.

ANSWER: <u>vacuum permittivity</u> [or <u>permittivity of free space</u> or <u>epsilon-naught</u> or <u>epsilon-sub-zero</u>, prompt on <u>permittivity</u> or <u>epsilon</u>] <KL, Physics>

- 11. Notable features of this dialect include the pin-pen merger. For 10 points each:
- [10] Name this North American dialect of English, which in contrast has resisted the cot-caught merger. Vowels in this dialect are sometimes pronounced as diphthongs.

ANSWER: **South**ern American English [accept **South**ern accent]

[10] Prior to World War II, this phenomenon was exhibited by the Southern American dialect. Other dialects which exhibit this phenomenon include the Boston accent, in which the letter "r" is not pronounced when followed by a consonant.

ANSWER: **non-rhotic**ity [prompt on r-dropping or similar descriptions; do not accept **rhotic**ity]

[10] Along with the New York accent, Southern American is one of the major influences of the Yat ["yatt"] accent in this city. Cajun English is also spoken in this largest city in Louisiana.

ANSWER: New Orleans <SL, Social Science>

- 12. Gunpowder explosions have had major historical ramifications. For 10 points each:
- [10] This empire lost the Battle of Tondibi after a gunpowder explosion triggered a cattle stampede. This empire was founded by Sonni Ali but later ruled by the Askia dynasty.

ANSWER: Songhai Empire

[10] This Native American tribe went to war with the United States after hot shot resulted in the explosion of gunpowder stores at the Negro Fort. This tribe would fight a second war against the United States in Florida.

ANSWER: Seminoles

[10] During a Spanish siege of this city, the Dutch unleashed "hellburners" against the enemy, causing a gunpowder explosion which killed hundreds of Spanish troops. This city was earlier sacked in the "Spanish Fury."

ANSWER: Antwerp < GP, Ancient/Other>

- 13. Richard Prince appropriated a cigarette ad for an untitled photo of a person with this profession. For 10 points each:
- [10] Give this profession of four men side by side in a sculpture subtitled *Coming Through the Rye*. People of this profession are also depicted in *A Dash for the Timber*.

ANSWER: **cowboys** [accept equivalents like **ranchers**]

[10] *Coming Through the Rye* and *A Dash for the Timber* are by this artist who also depicted the American Southwest in his statue *Bronco Buster*.

ANSWER: Frederic Remington

[10] In addition to cowboys, Remington often depicted these people such as in a painting of them *Simulating Buffalo*. They are also the subjects of Remington's illustrations of *The Song of Hiawatha*.

ANSWER: Native Americans [or Indians; or Indians] Americans AMB, Visual Fine Arts

- 14. When harvesting this fruit, the speaker of a poem ends up with hands "peppered with thorn pricks" and palms "sticky as Bluebeard's." For 10 points each:
- [10] Name this fruit. In that poem, Seamus Heaney ["SHAY-mus HAY-knee"] notes how their "flesh was sweet like thickened wine" and how "blobs" of this fruit "burned / Like a plate of eyes."

ANSWER: **blackberry** [accept "Blackberry-Picking"]

[10] This other poet described using a "long, two-pointed ladder" to harvest the title fruits in "After Apple-Picking." He also wrote "The Road Not Taken" and "Mending Wall."

ANSWER: Robert Frost

[10] Harvested fruit may be sold at this title location of an 1862 poem, where Laura and Lizzie hear the cry "come buy our orchard fruits / come buy, come buy."

ANSWER: "Goblin Market" [by Christina Rossetti] < WZ, Non-Epic Poetry>

- 15. Projective geometry features hyperplanes located at this location. For 10 points each:
- [10] Name this general location. The Riemann sphere extends the complex plane by adding a point at this location.

ANSWER: infinity

[10] Projective geometry is non-metrical, meaning that this quantity is not defined. This quantity between two points is equal to the square root of the sum of the squares of the difference in each coordinate.

ANSWER: distance

[10] An important theorem in projective geometry is Pascal's theorem, which regards sets of six points on these figures. They are plane curves defined by second-degree algebraic equations.

ANSWER: conic sections [prompt on ellipses, parabolas, or hyperbolas] <SL, Math>

- 16. A series of 2019 wildfires devastated this province's Wood Buffalo National Park. For 10 points each:
- [10] Name this westernmost of the Canadian Prairie Provinces. One of Queen Victoria's daughters names the turquoise Lake Louise in this province's Banff National Park.

ANSWER: Alberta

[10] The high productivity of *these* Albertan oil deposits has led to an economic boom that has attracted many job-seeking immigrants. These tar sands are located near the boomtown of Fort McMurray and north of Edmonton.

ANSWER: Athabasca tar sands [accept Athabasca oil sands]

[10] The aforementioned oil boom has especially bolstered the immigrant population of this city. This largest city in Alberta lies south of Edmonton.

ANSWER: Calgary < CS, Geography>

- 17. When confronted, this character responds "I don't see that we can have anything in common. Judging from your uniform buttons, I should say you're from another government department." For 10 points each:
- [10] Name this character who prays at Kazan Cathedral and is apprehended by police trying to flee St. Petersburg over the course of a short story.

ANSWER: the **nose** [or Major Kovalyov's **nose**; do not accept or prompt on just "Major Kovalyov"]

[10] This other story by the author of "The Nose" centers on the government clerk Akaky Akakievich, who goes to the tailor Petrovich for help.

ANSWER: "The Overcoat"

[10] This Russian author wrote the short story collection *Evenings on a Farm Near Dikanka* as well as "The Nose" and "The Overcoat."

ANSWER: Nikolai Vasilievich Gogol < AMB, Short Fiction/Other Literature>

- 18. The most common sphingolipid in humans is named for this substance, which it partially comprises. For 10 points each:
- [10] Name this fatty substance that facilitates saltatory conduction by allowing action potentials to travel between nodes of Ranvier.

ANSWER: myelin

[10] These structures are surrounded by myelin and attached to the soma with a hillock. Their development is partially regulated by netrins, and they form neurons along with dendrites.

ANSWER: axons

[10] These cells produce myelin in the central nervous system. They can wrap myelin around 50 axons, in contrast to their peripheral counterparts.

ANSWER: oligodendrocytes [or oligodendroglia, prompt on neuroglia or glial cells] <KL, Biology>

- 19. The Barberini Diptych was created using this material. For 10 points each:
- [10] Name this material, which was made into oliphants by the Kongo Kingdom. The use of this material in art is frowned upon due to heavy poaching of rhinoceroses and elephants.

ANSWER: ivory

[10] A spiritual awakening by Doña Beatriz popularized ivory figures of a saint with this name in the Kongo Kingdom. A different saint with this name is shown being carried into the sky in a Hieronymus Bosch triptych named after him.

ANSWER: **Anthony** [accept Saint **Anthony** of Padua or Saint **Anthony** the Great]

[10] Ivory was used to create a 37-foot tall chryselephantine statue inside this structure. That statue was created by the architect Phidias, who also created the frieze of this structure.

ANSWER: Parthenon < HP, Other Visual Arts>

- 20. Members of this ethnic group ambushed the Four Four Bravo patrol, sparking a 25-year long civil war. For 10 points each:
- [10] Name this ethnic group which, under Vellupillai Prabhakaran, formed a terrorist organization calling for the creation of Eelam. This ethnic group organized the Federal Party in that same country.

ANSWER: <u>Tamil</u>s [accept <u>Tamil</u> Tigers or the Liberation Tigers of <u>Tamil</u> Eelam; prompt on <u>LTTE</u>]

[10] The Tamil Tigers fought a civil war in this island country in the Indian subcontinent. The Tamils are a minority in this country to the majority Sinhalese.

ANSWER: Democratic Socialist Republic of Sri Lanka

[10] The Tamil Tigers have been accused of crimes against humanity for using these weapons. Joseph Kony, the leader of the Lord's Resistance Army, came to attention in a 2012 documentary detailing his usage of these weapons.

ANSWER: children [accept child soldiers, kids, and other equivalent answerlines] <AN, World History>