

2016 MYSTERIUM: “I quiz all sounds, all thoughts, all everything”

Packet 5 – ernesaks

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Tossups

1. **A former head of one of these places hears a girl play “Danse Macabre” on the piano, which reminds him of the “singing metal” in the mine where his father worked. After not leaving the top floor of his house for eight years due to a scandal over one of these institutions, a man dies in the snow and is found by his wife’s twin sister Ella. Fear of a letter from an employee of one of these places prompts a woman to dress as a fishergirl and dance the Tarantella for her husband. John (*)** Gabriel Borkman is a disgraced director of one of these places. In another play, a woman indulges in macaroons after her husband is put in charge of one of these institutions, but is then blackmailed for forging her father’s signature by an employee of that place, Krogstad. For 10 points, Torvald Helmer in Ibsen’s *A Doll’s House* runs what sort of institution, which his wife Nora illegally obtains a loan from?

ANSWER: **banks**

<JB European Literature>

2. **People undergoing this process form the largest part of a corpus established at Carnegie Mellon by Brian MacWhinney and Catherine Snow. Pullum and Scholz published a critical “empirical assessment” of a theory about this process, prompting an “empirical re-assessment” in favor of that theory by Legate and Yang. People undergoing this process do not entertain incorrect hypotheses about phenomena such as auxiliary-fronting, a fact that inspires the (*)** “poverty of the stimulus” argument about it. A feral child named Genie had not completed this process by age 13, suggesting that it is easiest during a “critical period” up to about age five. At the end of this process, children have successfully mastered both a grammar and a lexicon. For 10 points, name this process in which a child develops into a fluent native speaker.

ANSWER: first **language acquisition** [or **learning** a first **language**; or **L1 acquisition**; or word forms; do not accept “second language acquisition”]

<SE Social Science/Thought>

3. **An attempt to reduce this state may produce the “sheepskin effect,” or result in “separating” and “pooling” equilibria. Employees acquiring education has often been studied as a way of remedying this situation similar to a warranty. A form of this situation was first named to describe how high-risk customers drive up the cost of insurance. In that form of this situation, the equilibrium price is too low for producers to sell high-quality goods, so low quality goods dominate. Ways out of this situation include (*)** screening and signalling, which were studied by Joseph Stiglitz and Michael Spence. This situation’s special case of adverse selection was explored by George Akerlof in “The Market for Lemons.” For 10 points, name this situation in which one party to a transaction knows more than the other.

ANSWER: **information asymmetry** [or **asymmetric information**; prompt on “imperfect information”; accept **moral hazard**; accept **adverse selection** until it is read]

<JR Economics/Psychology>

4. If a conducting object with this geometry is placed in a uniform electric field of strength E , then its surface charge distribution will be $2\epsilon_0 E \sin \theta$. When solving the Laplace equation in a coordinate system with this geometry, the solution is most generally a sum over Bessel functions in r times complex exponentials in the other two coordinates. To integrate in that 3D coordinate system, we multiply our integrand by the determinant of the Jacobian matrix, which is just $(*) r$. When visualizing protein structure, alpha helices are often represented by these structures. For an infinite charge distribution with this geometry, the electric field outside the distribution decays as $1/r$, instead of $1/r^2$. The coordinate system with this geometry describes each point by the polar r and θ , and a height z . For 10 points, name this geometry, which describes surfaces that are equidistant from a given axis, with volume $\pi r^2 h$.

ANSWER: cylinder [accept cylindrical]

<SP Other Science>

5. In a story by this author, a child is given a box of candy every day by a botanist who can't keep the names of his seven daughters straight. This author wrote about a man who reveals that he ripped a woman's picture out of a magazine, and that he sold his anniversary gift, a sweater-vest, while playing a secret-telling game with his wife during power outages. In a story by this author, a boy who is trying to memorize all the capitals uses "loving someone you don't know" to define a word which $(*)$ Miranda heard whispered across the Mapparium by Dev. In one of her stories, the characters look at friezes of naked bodies before Mr. Kapasi saves Bobby from a horde of monkeys. For 10 points, name this Indian-American author of the short story collection *Interpreter of Maladies*.

ANSWER: Jhumpa Lahiri

<JB Other Literature>

6. Early on, this composer was insulted when Handel claimed that his cook knew more counterpoint than this man. In Act 2 of one of this man's operas, the protagonist has a nightmare after singing that "calm returns to my heart" over an extremely agitated-sounding accompaniment. The title character of one of his operas admires the fresh air in the aria "Che puro ciel" ("kay POO-roh chyeel"). This composer was the main operatic model for Hector Berlioz. This composer collaborated with the librettist $(*)$ Calzabigi to get rid of plain recitatives, static da capo arias, and other "overcomplicated" and "undramatic" conventions, principles set out in the preface to *Alceste*. He included the ballet "Dance of the Blessed Spirits" and the aria "Che farò senza Euridice" ("kay fah-ROH sen-TZAH oo-ree-DEE-chay") in a 1762 opera. For 10 points, name this reformer of 18th-century opera who wrote *Iphigénie en Tauride* and *Orfeo ed Euridice*.

ANSWER: Christoph Willibald (Ritter von) Gluck

<JR Other Arts>

7. Starting at the age of sixteen, this man spent three years living in the wilderness with the hermit Bannus. With help from the actor Aliturus, this man persuaded Poppea Sabina to release several priests that had been imprisoned by the procurator Felix. This man survived a mass suicide in which each participant killed his neighbor in an order determined by the casting of lots. That mass suicide followed this man's defeat in the siege of Jotapata. While in captivity, this man prophesied that $(*)$ Vespasian would become emperor; later, this man adopted Vespasian's family name. For 10 points, name this Pharisee, a Judeo-Roman historian who wrote such works as *Against Apion*, *The Antiquities of the Jews*, and *History of the Jewish War*.

ANSWER: Flavius Josephus [or Joseph ben Matityahu]

<WC European/Ancient History>

8. Upon T-cell activation, the ZAP70/Syk family of these proteins are activated, leading to the localization of the transmembrane protein “Linker for Activation of T-cells,” or LAT. SH2 domains allow binding to activated proteins of this kind. When activated, proteins of this kind can bind to Src or phospholipase C. JAKs are a family of intracellular proteins of this kind. Drugs that inhibit these proteins have a (*) -*tinib* suffix, and include crizotinib and erlotinib. The epidermal growth factor receptor and the insulin receptor are examples of cell-surface receptors that are this kind of protein. Membrane-bound enzymes of this kind dimerize upon activation. Those cell-surface proteins of this type are often contrasted with G-protein coupled receptors. For 10 points, name these proteins that phosphorylate a phenolic hydroxyl in the side chain of a certain amino acid.
ANSWER: (receptor) tyrosine kinases [or RTKs; prompt on partial answers]

<SP Biology>

9. Ethiopian Christians celebrate this holiday as *Timkat*. This is the first day of King Cake season in Louisiana. In Eastern Christianity, the Holy Water is blessed twice on this day. This holiday supposedly falls on the day of the Wedding at Cana. In Russia, this holiday is often celebrated by cutting a hole in the ice and going swimming. This holiday celebrates a group of people sometimes identified as Caspar, Melchior, and Balthasar, who “rejoiced with exceeding great joy.” The first period of (*) Ordinary Time begins a week after this holiday. An Irish celebration of this holiday is depicted in Joyce’s “The Dead.” In Eastern Christianity, this holiday celebrates the Baptism of Jesus. This holiday is preceded by the Twelfth Night of Christmas. It celebrates a group of people who “saw a star in the East” and brought gold, frankincense, and myrrh. For 10 points, name this holiday celebrating the visit of the Magi.

ANSWER: Epiphany [or Theophany]

<JR Religion>

10. In a novel by this author, a soldier watches a mob of soldiers nearly kill an air force pilot, then catches a gypsy’s escaped pig in exchange for water. In one of his novels, a composer abandons a woman to the “Lakeland rapist” in order to work on his *Millennial Symphony*, and an editor is disgraced for trying to publish photos of a politician in drag. In a novel by this author, a scene in which a girl jumps into a fountain to retrieve part of a broken vase is observed by the writer of *The Trials of Arabella*. A novel by this author follows (*) Clive and Vernon, former lovers of Molly Lane who agree to a euthanasia pact after her death from cancer. In one of his novels, Robbie Turner is falsely accused of raping Lola by Briony Tallis. For 10 points, name this British author of *Amsterdam* and *Atonement*.

ANSWER: Ian (Russell) McEwan

<JB British Literature>

11. Vito Acconci stalked strangers through the streets of this city for his *Following Piece*. A self-destructing construction featuring a burning piano by Jean Tinguely was titled “Homage to” this city. In this city, the painter of *Boy and Dog in a Johnnypump* dressed as a boxer for photographs taken with an artist who urinated on copper paint to produce the *Oxidation* series while working in this city. A pair of artists called SAMO operated in this city. Artists like (*) Keith Haring and Jean-Michel Basquiat (“boss-kyah”) painted graffiti in this city, where silkscreens of Marilyn Monroe were produced at Andy Warhol’s Factory. The streets of this city are represented by a yellow grid in a painting by De Stijl artist Piet Mondrian. For 10 points, name this city that inspired *Broadway Boogie Woogie*.

ANSWER: New York, New York [or New York City; or NYC]

<JB Visual Arts>

12. A member of this family named Consuelo married the Duke of Marlborough on her mother's orders. Another member of this family named a ship originally meant to be used as a ram to sink the CSS *Virginia*, and was a captain for Thomas Gibbons of *Gibbons v. Ogden* fame. Another member of this family once exclaimed "the public be damned!" This family owned The Breakers in Newport, Rhode Island, and currently owns the (*) Biltmore Estate in North Carolina. A member of this family supposedly told William Walker that "I won't sue you, for the law is too slow. I'll ruin you." That man first made his fortune by operating steamboats, resulting in his being nicknamed "The Commodore," and also built the New York Central Railroad. For 10 points, name this American family of business magnate Cornelius, the namesake of a university in Tennessee.

ANSWER: Vanderbilt family

<NC American History>

13. Under this condition, the Burgers equation becomes a conservation law for kinetic energy density. When this condition holds, a certain biharmonic term vanishes and the Laplacian of the stream function becomes constant in time. Unsteady flows with this property are always hyperbolic rather than parabolic. If this property holds, then one need not impose the no-slip boundary condition, and it is often assumed to hold outside of the boundary layer. The opposite of this type of flow is known as creeping flow. According to (*) d'Alembert's ("dal-ahm-bear's") paradox, if a fluid is incompressible and has this property, then it exerts zero drag on objects moving within it. The Navier-Stokes equations reduce to the Euler equations under this condition, which is only exhibited in reality by superfluids. For 10 points, name this type of fluid where there is no resistance to flow.

ANSWER: inviscid fluid [accept answers that indicate viscosity is zero; anti-prompt on "superfluidity" until read]

<SE Physics>

14. This book critiques the "creative power of the mind" by detailing the process of imagining a "golden mountain" and a "virtuous horse." It opens by contrasting "easy and obvious" and "accurate and abstruse" brands of moral philosophy. The eighth section of this book presents a compatibilist argument borrowing Hobbes's pairing of "liberty and necessity." It distinguishes between propositions that are true *a priori* and *a posteriori* using examples like the Pythagorean Theorem and "The (*) sun will rise tomorrow." This book discusses the collision of billiard balls to show that we only perceive cause and effect through "custom or habit." Its empiricist section "Of the Origin of Ideas" puts forth the Copy Principle and was mostly derived from a similarly-named book by John Locke. For 10 points, *A Treatise of Human Nature* was a major source for what book by David Hume?

ANSWER: *An Enquiry concerning Human Understanding* [or Hume's First Enquiry]

<JR Philosophy>

15. The speaker of this poem claims that "voices of the interminable generations of prisoners and slaves" speak through him after exclaiming "unscrew the locks from the doors!" This poem describes "Houses and rooms... full of perfumes" before stating "The atmosphere is not a perfume." This poem describes a woman who "hides handsome and richly drest aft the blinds of the window" while imagining (*) joining "twenty-eight young men" she sees bathing. This poem's speaker answers "the beautiful uncut hair of graves" to a child's question of "What is grass?" Its last section states "I sound my barbaric yawp over the roofs of the world." For 10 points, name this poem that begins "I celebrate myself and sing myself," a long poem from *Leaves of Grass* by Walt Whitman.

ANSWER: "Song of Myself"

<JB American Literature>

16. The wife of one leader of this country was a prolific writer of works such as *Sweet Hours* who wrote under the pseudonym Carmen Sylva. The “monstrous coalition” forced the reformer Alexander Cuza to abdicate as Domnitor of this country. It’s not Serbia or Montenegro, but this country’s independence was recognized at the 1878 Congress of Berlin under Prince Karl of Hohenzollern-Sigmaringen. This country has a large (*) Hungarian population known as the Székelys (“SAY-kays”). A 20th-century dictator from this country attempted to flee via helicopter, and was executed along with his wife on National TV. This country consists of the historical principalities of Wallachia, Moldavia, and Transylvania. For 10 points, name this country once ruled by Nicolae Ceaușescu (“chow-SHESS-koo”).

ANSWER: **Romania**

<LL European/British History>

17. A collection of these pieces uses six different kinds of opening movements, last movements in six different time signatures, and six different keys: B-flat major, C minor, A minor, D major, G major, and E minor. It doesn’t refer to a specific ensemble, but the *sonata da camera* followed the same format as this genre. The “standard” format of these pieces was established by Froberger. One of eight of these pieces Handel published in 1720 ends with “The Harmonious Blacksmith.” A B-minor piece in this genre was paired with the (*) *Italian Concerto* in the second volume of Bach’s *Clavier-Übung*. In Germany, these pieces were often named for beginning with a French Overture. Other names for this genre include “ordre” and “partita.” They typically include a gigue, a sarabande, a courante, and an allemande. French harpsichord composers like Rameau and Couperin bundled their pieces as works in this genre. Bach wrote “French” and “English” collections of these pieces. For 10 points, name this genre of six Bach pieces for solo cello.

ANSWER: **suites** [accept French **overture**, **ordre**, or **partita** until those words are read; accept more specific answers like **cello suites**]

<JR Auditory Arts>

18. While searching for one of these objects, a mother and daughter pair of divers found it with a talking snake in an underwater golden city. When he met Yoshitsune, the giant Benkei collected 999 of the objects of this sort that he needed to build a temple. Yamato-Takeru used one of these objects to escape a circle of fire set by enemy warlords. A god wearing a girl transformed into a comb in his hair found one of these objects after he lured his foe to eight vats of wine. Amaterasu (*) ate one of these objects, then spit out three goddesses during a contest with her brother. One of them was discovered in the tail of the serpent Yamata-no-Orochi by Susano’o. Amaterasu gave Ninigi a string of beads, a mirror, and one of these objects, called Kusanagi, which form Japan’s imperial regalia. For 10 points, name this sort of weapon exemplified by the Japanese *katana*.

ANSWER: **swords** [accept **katana** until it is read]

<JB Mythology/Other>

19. 12-crown-4 is an ionophore developed to chelate this element in nonpolar solvents. The hexamethyl-disilazide salt of this element is often used as a non-nucleophilic base to generate enolates. The Schlosser modification allows *E*-alkenes to be generated from the Wittig reaction instead of the predominant *Z*-product through the use of strongly basic salts with this element as a counterion. Hard-soft acid-base theory successfully predicts the unusually-low solubility of this element’s fluoride salt; that is because of this elemental ion’s high (*) charge density. This element is the only member of its group to react in a nitrogen atmosphere to generate its nitride. Carboxylic acid derivatives are often reduced using the aluminium hydride salt of this element. A very basic organic reagent, which must be stored in tetrahydrofuran, is formed when the butyl group is bonded to this element. This element is used as a treatment for bipolar disorder. For 10 points, name this lightest alkali metal.

ANSWER: **lithium** [or **Li**]

<SP Chemistry>

20. The massive Fakhri sextant was once housed inside an observatory in this city. The builder of that observatory founded a madrassa that, along with the Sirdar and Tilkari madrassas, bounds this city's Registan Square, and was named Ulugh Beg. A tiled turquoise dome tops this city's Bibi Khanum Mosque. The exhumation of a body in this city by Mikhail Gerasimov, a pioneer of forensic facial reconstruction, coincided with the (*) Nazi invasion of the Soviet Union. Before it was conquered by the khanate of Bukhara, this city's most famous resident ordered the construction of the Gur-e Amir mausoleum complex. For 10 points, name this city in Uzbekistan that once served as the capital of Tamerlane's empire.

ANSWER: Samarkand

<WC World History>

Bonuses

1. The Friendship Nine created the “jail, no bail” strategy after being arrested for one of these events. For 10 points each:

[10] Name this type of nonviolent protest. Four students in Greensboro in 1960 used this type of protest when they refused to leave a Woolworth’s lunch counter.

ANSWER: **sit-ins**

[10] In this state, sit-in participants were beaten with baseball bats on “Axe Handle Saturday.” An African-American town in this state was destroyed during the 1923 Rosewood massacre.

ANSWER: **Florida**

[10] The sit-in was first developed by Bernice Fischer, one of the co-founders of *this* organization. It was one of the “Big Four” of the civil rights movement along with the SCLC, SNCC (“snick”), and the NAACP.

ANSWER: **CORE** [or **Congress of Racial Equality**]

<JB American History>

2. In a gauge transformation, this quantity is shifted by the gradient of the scalar gauge function. For 10 points each:

[10] Identify this quantity. Its divergence is set to zero in the Coulomb gauge, while in any gauge choice, taking the curl of this quantity gives the magnetic field.

ANSWER: magnetic **vector potential**

[10] In the Coulomb gauge, which is not Lorentz-invariant, the vector potential may appear to have this troubling property. This is not a problem, since the vector potential does not exert forces or carry information on its own.

ANSWER: it appears to **violate causality** [accept word forms; accept answers that substitute **acausal** for “violate causality”; accept answers involving “**signals** traveling **instantaneously**”; accept, but do not reveal, answers involving “**signals** traveling **faster than the speed of light**” or “**superluminal** motion”]

[10] Considerations of causality are important because physical information cannot propagate faster than this speed. This value, symbolized c , appears in the manifestly causal Lorenz gauge to make units work out.

ANSWER: **speed of light**

<SE Physics>

3. This poem describes Toussaint Louverture as a man who “mesmerizes the white sparrow hawk of white death.” For 10 points each:

[10] Name this long poem by Aimé Césaire (“ay-MAY say-ZAIR”) that repeats phrases such as “In this inert town” and “At the end of daybreak.”

ANSWER: **Notebook of a Return to the Native Land** [or **Cahier d’un retour au pays natal**; or **Return to My Native Land** or other answers mentioning **Return** and **Native Land**]

[10] The image of “flowers of blood” found in *Notebook* anticipates this poet’s mention of “petals of blood” in his poem “The Swamp.” This poet also wrote “Ruins of a Great House” and “A Far Cry From Africa.”

ANSWER: Derek **Walcott**

[10] *Notebook* claims that this concept is “not a leukoma of dead liquid over the earth’s dead eye.” This word derives from a racial slur and names a Pan-African literary movement founded by Césaire, Senghor, and Léon Damas.

ANSWER: **Négritude**

<JB Other Literature>

4. Four composers from this country worked on the unfinished opera-ballet *Mlada*, whose first act was written by César Cui. For 10 points each:

[10] Name this country where Mily Balakirev led The Mighty Five, a group that included Musorgsky and Borodin.

ANSWER: **Russia**

[10] Another Russian composer, Alexander Glazunov, completed *this* many symphonies. Shostakovich's symphony of this number was nicknamed "Stalingrad" by the USSR to correspond to the previous "Leningrad" symphony.

ANSWER: **eight**

[10] Glazunov also wrote a concerto in E-flat for this instrument. Marcel Mule often performed Debussy's *Rhapsodie* for this instrument and orchestra, which shouldn't be confused with his *Première Rhapsodie*.

ANSWER: alto **saxophone**

<OL Auditory Arts>

5. Answer some questions about Melanie Klein, for 10 points each.

[10] Like Jean Piaget, Klein mainly studied *these* individuals, who were the original focus of developmental psychology.

ANSWER: **children** [accept equivalents and more specific answers like **toddlers** or **infants**]

[10] Klein developed an "identification" described by *this* word that develops in close relationships. This word also describes tests like the Rorschach test, in which the subject is forced to supply information.

ANSWER: **projective** [accept word forms like **projecting** or **projection**]

[10] In Klein's object relations theory, infants move from the splitting of the paranoid-schizoid position to *this* position. This position is characterized by the desire for reparation, an idea picked up by Donald Winnicott.

ANSWER: **depressive** position

<JR Economics/Psychology>

6. Mã Yuán earned the title "General who Calms the Waves" for defeating these leaders. For 10 points each:

[10] Identify this pair of siblings that led an unsuccessful rebellion against the Han Dynasty's rule of Vietnam.

ANSWER: **Trung** Sisters

[10] After defeating the Trung Sisters, Mã Yuán cast a bronze horse by melting down instruments of this sort owned by Yuè ("y'-WEH") chieftains. Young boys were often employed to beat these instruments by European armies.

ANSWER: **drums**

[10] This later female Vietnamese warrior led resistance to the Eastern Wu kingdom and, according to legend, stood 9 feet tall and tied her 3-foot-long breasts behind her back.

ANSWER: Lady **Triệu** [or **Triệu** Thị Trinh ("JEE-oo tee jin")]

<JB World History>

7. Radical chemistry is hard! For 10 points each:

[10] Radicals have unpaired electrons, which means that they have one or more atoms that cannot have this stabilizing configuration of eight electrons in their outermost shell.

ANSWER: **octet**

[10] This radical reaction uses a titanium trichloride catalyst, which is reduced by hydrides or other metals *in situ* to form titanium(0), to perform a reductive dimerization of a ketone into a 1,2-diol.

ANSWER: **McMurry** reaction

[10] Many radical reactions require these compounds, which are easily photolyzed into radicals that subsequently react with the starting materials, beginning the chain reaction. AIBN is an example of one of these.

ANSWER: radical **initiator**

<SP Chemistry>

8. A character with this profession calls on Professor Willard and Editor Webb to give scientific and social accounts of a town. For 10 points each:

[10] Name this profession of a character who converses directly with Emily Webb as she relives her twelfth birthday and narrates a play set in Grover's Corner.

ANSWER: **stage managers** [accept word forms]

[10] The Stage Manager narrates the action of this Thornton Wilder play titled for the community of Grover's Corner, New Hampshire.

ANSWER: **Our Town**

[10] A man is guided through roles in several plays by the stage manager Meg in this author's *The Actor's Nightmare*. In one of his plays, the title character asks Thomas catechism questions and shoots her former students Diane and Gary.

ANSWER: Christopher **Durang**

<JB American Literature>

9. Answer some questions about the architecture of the Pantheon in Rome, for 10 points each.

[10] The dome of the Pantheon is constructed out of *this* material, which was crucial to Rome's durable engineering projects. The Romans used volcanic ash to make the cement in this material.

ANSWER: Roman **concrete** [or **opus caementicium**]

[10] The portico of the Pantheon is composed of *this* kind of column. Of the three classical orders, this one was the most ornate.

ANSWER: **Corinthian** columns

[10] To lighten the dome, the architects of the Pantheon incorporated *these* rectangular indentations into its underside.

ANSWER: **coffers** [accept **caissons**, **lacunaria**, **coffering**, or **lacunar**]

<JR Other Arts>

10. Initiates to this religion passed through the seven levels, called raven, male bride, soldier, lion, Persian, sun-runner, and father. For 10 points each:

[10] Name this religion whose iconography included a lion-headed man, a god being birthed from a stone, and a bull-killing scene called the tauroctony.

ANSWER: **Mithraism** [or the cult of **Mithras**; or **Mithraic** mysteries]

[10] The Roman Mithraic mysteries was only open to men, unlike the cult of Magna Mater, who was identified with this Phrygian mother goddess and lover of Attis.

ANSWER: **Cybele**

[10] An earlier Roman cult centered on a god of wine known as the "free" one of these figures. The god Jupiter had this relationship to Minerva and Bacchus.

ANSWER: **father** [or **pater**]

<JB Mythology/Other>

11. This communist activist, who was nicknamed after a flower, proclaimed that “they shall not pass” while Madrid was under siege. For 10 points each:

[10] Name this longtime leader of the Communist Party of Spain in exile. She was elected to the Spanish parliament in 1977 following the restoration of democracy.

ANSWER: Dolores **Ibárruri** [or la **Pasionaria**; or the **Passionflower**]

[10] Ibárruri went into exile during the rule of this leader of the Falangist movement, who ruled Spain from the end of the Civil War until his death in 1975.

ANSWER: Francisco **Franco** Bahamonde

[10] Franco’s Falange (“fa-LAHN-hay”) party was founded by Jose Antonio of this family. Jose’s father, Miguel, ended the turno pacifico system by seizing power of Spain during the reign of Alfonso XIII.

ANSWER: **Primo de Rivera** [prompt on partial answers]

<NC European/Ancient History>

12. Go-playing robots have met recent successes by using Monte Carlo search on this kind of structure, which performs better than alpha-beta pruning since Go has a high branching factor. For 10 points each:

[10] Name this basic data structure. In machine learning, the “decision” type of this structure classifies an item by starting at the root, querying a feature of the item at each internal node, and returning the label of the leaf.

ANSWER: **tree** [accept game **tree** or decision **tree**]

[10] Decision trees are pretty basic, but at least they can compute this simple boolean function. Minsky and Papert proved that single-layer perceptrons cannot learn this non-linearly-separable binary operator.

ANSWER: **xor** function [accept **exclusive or**]

[10] This kind of term is added to the loss function to penalize complex models and avoid overfitting. Tikhonov’s method, a.k.a. ridge regression, early stopping, and limiting the decision tree’s depth are examples of this process.

ANSWER: **regularization** [accept word forms like **regularizer**]

<OL Other Science>

13. Answer some questions about Kwame Anthony Appiah, for 10 points each.

[10] Appiah wrote several books on *this* philosophical approach, including one subtitled “ethics in a world of strangers.” He summarized this idea as “universality plus difference,” or namely, shared morality but multiple cultures.

ANSWER: **cosmopolitanism**

[10] Appiah has also written extensively on the politics and ethics of *this* concept. This concept’s “formation” is also known as “individuation.”

ANSWER: **identity**

[10] Recently, Appiah published a book about the empirical side of moral philosophy, titled [*These procedures*] in *Ethics*. These studies are the foundation of the scientific method.

ANSWER: **experiments** [accept word forms like **experimental**]

<JR Philosophy>

14. These poets wrote in forms like the *alba* and the *canço*. For 10 points each:

[10] Name these poets and singers of southern France in the High Middle Ages. Their poems emphasized *fin'amor*, which sort of corresponds to the Romantic idea of “courtly love.”

ANSWER: **troubadours**

[10] The troubadours wrote in *this* language of Southern France, which takes one of its names from its word for “yes,” and the other name from a region of France that includes the French Riviera.

ANSWER: **Occitan** [or **Provençal**]

[10] Occitan literature *after* the troubadours was studied by *this* historian in his *Love, Death and Money in the Pays d'Oc* (“pay-EE DOCK”). This historian is probably best-known for a book of microhistory about the town of Montaillou (“moan-tie-YOU”).

ANSWER: Emmanuel (Bernard) **Le Roy Ladurie**

<JR European Literature>

15. This man was the first and only president of France’s Second Republic. For 10 points each:

[10] Name this nephew of Napoleon Bonaparte who established the Second Empire.

ANSWER: **Napoleon III** [or **Louis-Napoléon** Bonaparte; do **not** accept “Napoleon”]

[10] One prominent advocate of free enterprise during the Second Empire was this businessman, the illegitimate half-brother of Napoleon III.

ANSWER: duc de **Morny** [or Charles Dem**orny**]

[10] Another influential figure in the Second Empire was this opposition leader. After the fall of Napoleon III, this man destroyed the Paris Commune and became the first president of the Third Republic.

ANSWER: (Marie Joseph Louis) Adolphe **Thiers** (“tee-AY”)

<NC European/British History>

16. Answer some questions about Ernst Robert Curtius, for 10 points each.

[10] Curtius is best-known for this 1948 book, which claims that Renaissance literature was largely a continuation of Medieval rhetorical techniques. This book introduced the concept of a *topos* in the analysis of literary tropes.

ANSWER: **European Literature and the Latin Middle Ages** [or **Europäische Literatur und lateinisches Mittelalter**]

[10] Like Erich Auerbach, Curtius wrote within *this* mainly German tradition of literary criticism. This broad study of literary texts takes its name from the Greek for “love of the word.”

ANSWER: **philology**

[10] Before turning to the Middle Ages, Curtius was an expert in modern French literature, culminating in a book about *this* author of the extremely long autobiographical novel *In Search of Lost Time*.

ANSWER: Marcel **Proust**

<JR Social Science/Thought>

17. This disease was associated with nobility throughout history. For 10 points each:

[10] Name this disease that results from uric acid deposition, often affecting the joint at the base of the big toe. Those crystals cause inflammation, which is the primary source of discomfort.

ANSWER: **gout**

[10] Gout is often treated with this microtubule-destabilizing natural product, inhibiting mitosis and neutrophil and macrophage mobility and thus reducing inflammation.

ANSWER: **colchicine**

[10] In metazoan cells, microtubules emanate from this organelle, which consists of two orthogonally-arranged cylindrical structures.

ANSWER: **centrosome**

<SP Biology>

18. Bernard Berenson's first monograph on a single painter was an "essay in constructive art criticism" that revived the reputation of this man. For 10 points each:

[10] Name this Italian painter of the early sixteenth century. This peripheral member of the Venetian school is known for his richly coloured portraits and his bizarre *Recanati Annunciation*.

ANSWER: Lorenzo **Lotto**

[10] Lorenzo Lotto is usually regarded as a precursor of *this* artistic style, which used dynamic, contorted forms, in a reaction to the "balance" of the High Renaissance. A major history of this style was written by John Shearman.

ANSWER: **Mannerism** [accept word forms like **Mannerist**; accept **Manierismo**]

[10] John Shearman also wrote a book on a set of seven Raphael designs for tapestries. Those designs are given *this* name, which, like "study" and "*modello*," generally applies to any full-size sketch made on paper.

ANSWER: **cartoons** [accept **Raphael's Cartoons**]

<JR Visual Arts>

19. A narrative by Guido delle Colonne was a source for John Lydgate's 30,000 line "book" about this city. For 10 points each:

[10] Name this mythical city, the siege of which is the setting for Geoffrey Chaucer's *Troilus and Criseyde* and, in Greek myth, was prompted by the abduction of Helen.

ANSWER: **Troy** [or **Ilium**]

[10] This other Middle English poem begins "When the siege and assault had ceased on Troy." Written with stanzas ending in "bob and wheels," this poem describes a gift-giving game.

ANSWER: **Sir Gawain and the Green Knight** [prompt on "Gawain"]

[10] *Sir Gawain's* first and last stanzas refer to a man of this name with the first name Felix who, according to Geoffrey of Monmouth, left Troy to become the first king of Britain.

ANSWER: Felix **Brutus**

<JB British Literature>

20. Answer the following about some religions that seek the unification of all world faiths. For 10 points each:

[10] This religious figure taught the doctrine of progressive revelation, in which the founders of various world faiths are different Manifestations of God who have all taught an identical truth.

ANSWER: **Bahá'u'lláh**

[10] Another religion that seeks the unification of all world faiths is Cao Đài, which reveres the three saints Trạng Trình, Sun Yat-sen, and Victor Hugo. It was founded in *this* modern country while it was still a part of French Indochina.

ANSWER: **Vietnam**

[10] Those aforementioned three saints of Cao Đài are depicted writing *this* document in a mural at the Great Divine Temple at Tây Ninh. You may give either the name of the document or the text that is seen in the mural.

ANSWER: Divine **Covenant** of the **Third Amnesty** [or Divine **Covenant** of the **Third Period**; or **Dieu et Humanité, Amour et Justice**; or **God and humanity** for **love and justice**; or reasonable equivalents thereof]

<WC Religion>