

2014 ACF NATIONALS PACKET BY HARVARD

Tossups

- I. An important spectroscopic technique relying on these particles involves the preparation of a prism coated with a noble metal film in what's known as a Kretschmann configuration. In the transverse mode, these particles have a dispersion relation that gives their frequency as the product of the wave vector times the square root of the ratio of the sum of two dielectric functions divided by the product of those dielectric functions. The existence of these particles makes possible a type of waveguide based on their transfer through linear chains of nanoparticles, and unlike dielectric waveguides, waveguides using these particles involve evanescent fields on two sides of an interface. When they occur in the "bulk" variant, these particles represent longitudinal oscillation modes and cannot couple to incoming photons. The "surface" variants of these particles occur at the interface between materials where the real part of the dielectric changes sign, and their localized excitation results in an enhanced signal during Raman spectroscopy. For 10 points, identify these collective oscillations of free electrons in bulk metals. ANSWER: PLASMONS [accept PLASMA OSCILLATION]
- 2. This composer had the piano play in a high register above the strings to evoke the sound of a music box, in the fifth of eleven variations appearing in the second movement of an A minor piece beginning with a movement marked "pezzo elegiaco." The cellist repeats the sequence "D-flat, B-flat, B double flat, A-flat" twenty-six times in the *Andante cantabile* second movement of his *String Quartet No. 1 in D Major*. This man wrote a symphonic poem whose *Andante lugubre* introduction accelerates into an *E minor* Allegro depicting a whirlwind of souls in hell, then slows down when a solo clarinet plays the title woman's theme. His only piano trio is dedicated "to the memory of a great artist," in reference to the deceased Nikolai Rubinstein. This composer included a waltz in 5/4 time in the second movement of his sixth symphony, whose first movement features a bassoon solo marked with six *p*'s. For 10 points, name this composer of a "symphonic fantasy after Dante" titled *Francesca da Rimini*, whose last symphony is the *Pathetique*.

ANSWER: Pyotr Ilych TCHAIKOVSKY

- 3. This polity attacked Temasek twice, and one of its rulers may have given that island a name now corrupted to Singapore. That ruler also sent an expedition to the Ganges that brought back water to his new capital dubbed Gangai Konda and installed his son at Madurai. This kingdom's earlier ruler Parantaka I had destroyed Madurai to allow for expansion of this empire, and captured Nellore while fighting the Rastrakutas. Another of its rulers constructed the Brihadishvara Temple to Shiva at Tanjore, a power base that was lost when this kingdom was eventually overrun by the Pandyas. That ruler of this empire was Raja Raja I. At its height under Rajendra, this empire controlled the entirety of Sri Lanka and held territory in the Malay Peninsula. For 10 points, name this Tamil empire that grew from the Cauvery River valley to rule South India. ANSWER: Chola Empire
- 4. Along with Montesquieu, this philosopher was the subject of much of Althusser's thought in the late 1950s, which culminated in Althusser's publication in 1960 of an essay on this thinker's "Philosophical Manifestoes." This thinker argued for a new philosophy grounded in sensation in opposition to Cartesian rationalism in his *Principles for the Philosophy of the Future*, and his late work, including the essay "On Spiritualism and Materialism," and the book *On Moral Philosophy*, was chiefly concerned with the drive towards happiness. This philosopher was heavily criticized by Max Stirner in *The Ego and His Own* for bringing about only a "theoretical liberation," which only resulted in a "change of masters," and by Bruno Bauer, a fellow Young Hegelian, who attacked this thinker in an essay titled after this man's "Characteristics." This thinker's most famous work draws heavily on D.F. Strauss' *The Life of Jesus Critically Examined* and claims that "theology is anthropology." The subject of eleven short aphorisms, the last of which states, "Philosophers have only interpreted the world... the point is

to change it," For 10 points, identify this German philosopher, the subject of some theses of Marx, who wrote *The Essence of Christianity*.

ANSWER: Ludwig Feuerbach

5. This author quoted Virgil referring to the "monstrum horrendum... whose great Poliphemiam eye is put out," in an introduction addressed "to the World" that precedes one of his plays. One of this author's protagonists swindles a magical hat of teleportation out of a Sultan and is given a regenerating purse holding ten pieces of gold, but loses both treasures to his sons Ampedo and Andelocia. He partly set another play at a pancake feast at St. Faith's Church, where a soldier with amputated legs returns from war just in time to stop his wife from marrying Hammon. A beggar chooses wealth from six boons offered to him by the goddess Fortuna in his adaptation of a German legend, *Old Fortunatus*. This man interceded in the "War of the Theaters" by caricaturing Ben Jonson as the Roman poet Horace in his *Satiromastix*, but he is best known for a comedy in which Rowland Lacy avoids going to war by pretending to be the tradesman Hans. For 10 points, name this Elizabethan playwright of *The Shoemaker's Holiday*.

ANSWER: Thomas Dekker

6. Dopamine, serotonin, and norepinephrine can be detected with a variant of one of these techniques that uses instruments made from carbon-fiber. Assuming a temperature of 25 degrees Celsius, the results of one of these methods can be analyzed by the Randles-Sevcik equation. When analyzing the results produced by one of these techniques, a parameter for ideal systems reduces to 57 divided by n. A simpler technique of this kind has to be used when working with rotating disk and rotating ring-disk materials. As the rate constants for reactions gets lower, the curves produced by these techniques shift to the right. After one of these methods is performed, the square root of the scan rate is taken to estimate the current peak. The two most common techniques of this type both use a three-electrode setup, though whereas the set potential marks the end of the experiment in the "linear sweep" variety, the potential ramp is inverted after that point in the "cyclic" variety. For 10 points, name these electrochemical methods which monitor current as a function of applied voltage in half-cells.

ANSWER: <u>voltammetry</u> [or word forms; accept types of <u>voltammetry</u> throughout; prompt on "CV" and "LSV"]

7. In the title of his last speech in front of the Senate, Zachariah Chandler of Michigan identified his association with this group. A leader of this group had an affair with Kate Sprague, and was reportedly chased out of her home with a gun by her husband. That leader was the last man to turn down a Supreme Court seat after being confirmed by the Senate. This group included the senators John Logan of Illinois and J. Donald Cameron of Pennsylvania, as well as a certain man who objected to appointment of Judge William Robertson as a violation of the secret Treaty of Fifth Avenue, under which he was supposed to have the right to name the collector of the Port of New York. Identification with this group was shouted by Charles Guiteau upon assassinating James Garfield, exclaiming that Arthur is now president. For 10 points, name this Republican faction associated with Roscoe Conkling which supported Ulysses Grant in 1880 over the "Half-Breeds" like James G. Blaine.

ANSWER: STALWARTS

8. One work about this concept argues that it is characterized by a new type of "emotional ground tone" called "intensities" where extreme moments of outrageous emotion counter a general waning of affect across society. Ibn Hassan designed a two-column chart in *The Dismemberment of Orpheus* differentiating this idea from another concept by comparing a series of diametrically opposed characteristics such as "God the Father" versus "The Holy Ghost" and "semantics" versus "rhetoric". This concept's effect on space is explored in a famous analysis of the L.A. Westin Bonaventure hotel examining its unmarked entrances and intentionally confusing store layout. A book about this term identifies its symptoms as a breakdown between high and low culture, a new "depthlessness", and a new form of "blank parody" that cannibalizes the past for empty stylizations devoid of political awareness called a "pastiche." A "report on knowledge" commissioned by the government of Quebec famously defined it as an "incredulity towards meta-narratives." For 10 points, name this term identified with the "cultural logic of late capitalism" by Frederic Jameson whose "condition" was diagnosed by Jean-Francois Lyotard.

ANSWER: POSTMODERNISM

9. The male lead in this opera repeats that he is "cheating fancy bright with golden wings" in the aria "Prendre le dessin d'un bijou." This opera's second act sees the bass role stab the male lead after forcing his daughter to sing a story about a "daughter of the pariahs" who saves the son of a god in an aria that opens, "Ou va la jeune Indoue." Miss Ellen and Miss Rose accompany

Frederic and the male lead on a picnic in its first act, which features a B Major barcarolle in which two characters sing, "Ah! descendons ensemble" after the title character opens with the line "Dome épais le jasmin." The "Bell Song" appears in this opera that ends with the daughter of Nilakantha committing suicide with a poisonous datura leaf because she cannot be with the British officer Gérald. Featuring the "Flower Duet," for 10 points, name this opera about the title Indian priestess by Léo Delibes.

ANSWER: Lakmé

10. Charles Derbyshire did a popular translation of this author's most famous poem, which is inscribed on a bronze monument designed by Richard Kissling titled *Motto Stella*. In that poem's first stanza the speaker proclaims, "Gladly now I go to give thee this faded life's best, / And were it brighter, fresher, or more blest, / Still would I give it thee, nor count the cost" before concluding, "Beloved creatures all, farewell! In death there is rest!" This author wrote a novel whose protagonist leaves a nitroglycerin-packed lamp set to explode after twenty minutes as a wedding present after returning to his home country disguised as the jeweler Simoun. This author wrote "Mi Ultimo Adios" the day before his execution and penned a novel in which Captain Tiago raises Maria Clara and the evil friar Padre Damaso persecutes Crisostomo Ibarra. *El Filibusterismo* is the sequel to his novel titled after the Latin words Jesus spoke to Mary Magdalene. For 10 points, name this author who wrote *Noli Me Tangere* and is the national hero of the Philippines.

ANSWER: José Rizal

II. Mark Zborowski wrote about the culture of this institution in the book *Life Is With People*. Like universities, people in these institutions often joined subsidiary organizations called landsmanshaft, which played a role in maintaining burial plots within these entities. It was defined by the legal category of *mestechko*, decades after one polity abolished the "kahal" that held sway over these entities. The novel *Smugglers* provides a cynical view of these institutions, contrasting with the saccharine portrayal of one called "Belz" in an early 20th century song. A famous fictional one is Kasrilevke. A Maryan Marzinski documentary about a trip to Bransk was titled after one, and its airing on PBS Frontline in 1996 caused tension with a nascent democracy that fostered these entities, and usually had a gentile minority. For 10 points, name this class of small to mid-sized town that emerged after the Union of Lublin, which has a Yiddish name, and housed millions of Eastern European Jews prior to the Holocaust.

ANSWER: the SHTETL [prompt on "Jewish towns" or "Jewish villages," etc.]

12. This structure is absent in the "complete" DiGeorge's syndrome, though it is merely afflicted with aplasia in normal DiGeorge's syndrome. APECED patients suffer from mutations in the AIRE gene, which is normally expressed only in the medulla of this structure. It's not the brain, but the barrier between this structure and the bloodstream is maintained by epithelial cells known as "nurse cells." It consists of a 3D network of meshes formed by interconnected, finely-branched epithelial reticular cells. Surgical removal of this structure is a drastic way to force remission of myasthenia gravis. "Nude mice" come from strains with mutations causing abnormalities in this structure, rendering them unable to reject grafts. The process of positive selection in the cortex of this organ determines whether some cells become the CD4+ or CD8+ strain. From puberty to old age, this organ can shrink to as much as one-sixth of its size. For 10 points, name this immune organ of T-cell maturation, which is positioned in the chest in front of the heart.

ANSWER: THYMUS

13. Arlie Russell Hochschild expanded on this thinker's description of how modern workers "sell" their personalities to write *The Managed Heart*. This thinker warned that the world was transitioning from "the Modern Age" into the "Fourth Epoch" characterized by "rationality without reason" in his essay "Culture and Politics." Several of his books argue that bureaucracies turn workers into "cheerful robots" who happily submit to having diminished freedom. This social scientist analyzed how the "Metropolitan 400" contributed to the rise of modern celebrities in a book which harshly criticized the "romantic pluralism" of thinkers like David Riesman. Another of his books begins with a chapter called "The Promise," which argues that people often "feel that their private lives are a series of traps," and that social scientists can help address those traps by linking "private troubles" to "social issues." For 10 points, name this American sociologist, who discussed the purpose of sociology in *The Sociological Imagination* and wrote *The Power Elite*.

ANSWER: Charles Wright MILLS

14. Under Roman rule, this city was home to a set of public baths where coins featuring both Gordian III and Serapis were discovered. The Milesian colony that preceded this city worshipped the chthonic god Derzelas and was called Odessos. A campaign aimed at this city failed to receive expected aid from the Karamanids and saw an early defeat at Zlatitsa Pass. That campaign against this city was prompted by the fall of Novo Brdo and a subsequent bull from Pope Eugene IV, and later saw Cardinal Julian Cesarini receive an oath of campaign from Wladyslaw III despite concurrent negotiations for the Peace of Szeged. This city is not Kosovo, but it does name a battle where Wladyslaw was killed by Janissaries in front of the tent of Murad II, forcing John Hunyadi to signal retreat for his Polish and Hungarian troops in 1444. That battle ended the Crusade named for this city, which failed to oust the Ottomans from Europe. For 10 points, name this Black Sea port which is the headquarters for the navy of Bulgaria.

ANSWER: Varna [accept Odessus or Odessos early]

15. This author wrote a story in which a farmer and his wife seal up a cave where their children discover an embalmed corpse, and the title character of that story dies of heart failure after refusing a cup of mineral water from Mary Goffe. In another story, a character with a greenish skin resembling a serpent repeatedly shouts "It gnaws me!" before he is cured by his wife Rosina. This author described Richard Digby in "The Man of Adamant" and wrote another work about sculptor George Herkimer visiting Roderick Elliston who claims to have a snake living in his bosom. This author wrote a story in which Robin encounters a man with a painted face at the head of a tarring-and-feathering mob. This author of "Egotism" wrote a story with an anecdote about a beautiful woman sent to Alexander the Great as a gift, which ends with Professor Baglioni berating a scientist for making Beatrice poisonous. For 10 points, name this author of the stories "My Kinsman, Major Molineux" and "Rappaccini's Daughter."

ANSWER: Nathaniel HAWTHORNE

16. This artist painted an unusual lunette-shaped Annunciation scene with an illuminated lilac background that was changed into a rectangle by adding night-blue drapery to the corners. This artist notably juxtaposed a vignette in the left background of St. Elizabeth leading the child John the Baptist into the hills against the main scene of a Madonna where Jesus reaches down to an angel while standing on the title steps. This artist included the panels Baptism of the People and Birth of the Baptist in a series of grisaille works showing scenes from the life of St. John the Baptist for the Cloister dello Scalzo. This student of Piero de Cosimo painted the Madonna della Scala and showed Joseph holding an open book while resting his arm on the namesake sack in his unusual interpretation of the "Rest During the Flight into Egypt" painted in a lunette. This painter of the Madonna del Sacco taught Pontormo and in his most famous work depicted Francis and John the Evangelist on either side of a stone pedestal that is carved with the title mythological monsters. For 10 points, name this Florentine painter of Madonna of the Harpies, known as "without errors."

ANSWER: Andrea DEL SARTO

17. A missionary from this country reportedly claimed land for his monarch in front of 14 gathered tribes while singing "Vexilla Regis" and "Te Deum." A geographer from this country led a group sent to Ecuador to measure the Earth at its equator, and made the first European map of the Amazon basin. The final voyage of an explorer from this country ended in humiliation when his men brought back a load of minerals they thought were diamond and gold, but turned out to be iron pyrite and quartz. This country established the Company of One Hundred Associates to control its holdings, after one of its explorers discovered the villages of Stadacona and Hochelaga. While sailing under this country's flag, the coast of Rhode Island was explored by Verrazano. A man from this nation founded Anticosti Island and Prince Edward Island, before exploring the Saint Lawrence River. For 10 points, name this European country that sent men like Jacques Cartier to the New World. ANSWER: Kingdom of France

18. A certain sweep-line algorithm in computational geometry uses this structure to store information about potential future events that could change the beach line structure, in order to generate a Voronoi tessellation using big-O of n log(n) time and big-O of n space. That is Fortune's algorithm. For a sorter which has a sorting time given by some function S of n, a recursion relation for this data structure can be derived which gives the update time T of n equal to big-O of S of n plus T of log-squared of n. The standard implementation of Prim's algorithm for finding a minimum spanning tree uses this data structure to keep track of vertices. This data structure can be constructed from another data structure where every child node has a lesser key-value than its parent node; that other data structure, which can be used to implement this one because it supports both the insert and the delete-min operations is the max-heap. For 10 points, name these data structures that are not first-in-first-out,

but instead store elements with associated values of importance. ANSWER: PRIORITY QUEUE [do not prompt on partial answers]

19. The protagonist of this novel is confused when a light-green sequence of digits is referred to as a "celestial telephone number". A group of characters in this novel make fun of a womanizer after his pubic hair is unceremoniously shaven off. The protagonist of this novel is arrested while on a bus with that character, Fancyman, as well as others nicknamed Rosie, Smoker, and Leatherware, and earlier watches his father hand over control of a shop to Mr. Süto before kissing Annamarie during the middle of an air raid. The protagonist of this novel bunks with a toothless Ukrainian minesweeper named Bandi Citrom after being transferred to a location outside Zeitz from Buchenwald. Followed by the sequel Fiasco, for 10 points, name this novel about Gyuri Köves in the Holocaust, the first novel in a trilogy ending with Kaddish For An Unborn Child by Imre Kertesz. ANSWER: *Fatelessness* [or *Fateless*, or *Sorstalansag*]

20. This male god assumes the role of a porter and boosts the strength of one of the newborn babies of a woman expecting triplets in a mythological story in which he and a bunch of goddesses become midwives. A consort of this god was given the title "She Who Runs Like an Arrow" and, along with his daughter, was represented as a gazelle or antelope. This god's son with Menhit was named Heka because of his role in activating each person's ka. The name of this god and mentions of his protective power appear in the full name of the pharaoh Khufu, and he formed a triad with the aforementioned wife Satet and Anuket to which a temple at Elephantine was dedicated. He was replaced by Hapi as the representation of the flooding of the Nile, which left behind silt and clay that he then used for his most famous activity. For 10 points, name this ram-headed Egyptian god who created the gods and mankind on his potter's wheel.

ANSWER: Khnum [accept Khnemu and really anything with the consonants "k," "h", "n", and "m"]

TIEBREAKERS

21. An expedition planned by Joseph Grelier discovered the source of this river in the Parima range just north of Mount Delgado Chalbaud. A surreal depiction of that discovery was painted by Remedios Varo, showing the water of this river pouring from a goblet. Another large river system to the south is connected to this one by the Casiquiare Channel, which it flows into after arising near the town of Esmeralda. This river's delta stretches from the Gulf of Paria past the Serpent's Mouth to the island of Corocoro. Prior to reaching the delta, it's joined by the Caroni River, its largest tributary, and it passes through Ciudad Bolivar and Ciudad Guayana. There this river meets the effluent of the Embalse de Guri, which is the receptacle for the waters of Angel Falls. For 10 points, name this river that drains three-fourths of the water in Venezuela.

ANSWER: Orinoco River [accept Río Orinoco]

22. A political cartoon from Punch depicts this Frenchman watching as a kneeling German statesman claims he is drowning, telling him to "try standing up on your feet." This politician served as president of the review committee and the driving force behind France's 1905 state secularism law. With Jean Jaurés, this man founded the eventually communist publication L'Humanité, and later succeeded Georges Clemenceau as prime minister after the latter's first term. This statesman attended the Washington Naval Conference in 1921, and four years later produced a set of agreements that guaranteed the borders of Western Europe while leaving the German-Polish border undetermined. Those treaties were negotiated with Gustav Stresemann and Austen Chamberlain. He's best known for a 1928 treaty in which he convinced a large number of countries to outlaw war. For 10 points, name this Nobel Peace Laureate who negotiated the Locarno Treaties and a pact named for him and Frank Kellogg.

ANSWER: Aristide Briand

Bonuses

1. A modern pidgin of this language and German is known as Quelia. For 10 points each:

[10] Name this language. Roman Jakobson extensively studied this language's morphology, writing a 1932 article dealing with markedness and unmarkedness in this language's verbs.

ANSWER: Russian [or Ruskij]

[10] Along with Nikolai Trubetzkoy, Jakobson was a member of a circle of structuralist linguists and literary critics active in this namesake European city in the first half of the 20th century.

ANSWER: PRAGUE

[10] Jakobson notably developed six functions of language, building off this earlier model developed by his fellow-Prague Circle member Karl Bühler, which divides communication into three functions: expressive, referential, and conative.

ANSWER: Organon model

2. He watches Jewish private Arnold Epstein force abusive Sergeant Merwin Toomey to do two-hundred pushups in front of the platoon at a military camp in Biloxi. For 10 points each:

[10] Name this character who grows up in Brighton Beach with his brother Stanley, his widowed aunt Blanche and two cousins Nora and Laurie Morton. He names a semi-autobiographical trilogy of plays that ends with *Broadway Bound*.

ANSWER: EUGENE Morris Jerome

[10] This American dramatist wrote about Eugene Jerome in *Brighton Beach Memoirs*, but is better known for creating Felix Ungar and Oscar Madison in *The Odd Couple*.

ANSWER: Neil SIMON

[10] In this Simon play, the fifteen-year-old Jay Kurnitz has to take care of his younger brother Arty, and encourages his mentally challenged aunt Bella to stand up to their cruel grandmother and move out.

ANSWER: Lost in Yonkers

3. This boy unwittingly relinquished the gift of divination by spitting in his tutor's mouth, and later in life introduced the girdle and shield on a military campaign against Italy. For 10 points each:

[10] Name this boy who, in tales from the *Bibliotheca*, dies after falling into a jar of honey and is resurrected using an herb by the extremely reluctant seer Polyidus.

ANSWER: GLAUCUS

[10] Polyidus was forced to revive Glaucus while locked-up in a wine cellar by this king, Glaucus's father, whose habit of locking people up extended to Daedalus and Icarus in some tower, and to the Minotaur in the Labyrinth.

ANSWER: Minos

[10] Glaucus fared better than this brother of his, who fulfilled one of those "the son will kill the father" prophecies by landing in Rhodes in search of that very son Althaemenes, and being mistaken for a pirate.

ANSWER: CATREUS

4. A bill to outlaw this activity was advocated in the House of Lords by Lord Grenville during his Ministry of All the Talents. For 10 points each:

[10] Name this economic activity whose British involvement was ended in 1807 by an act that resulted from the campaigns of men like Granville Sharp and William Wilberforce.

ANSWER: Atlantic slave trade [accept English slave trade; do not accept or prompt on "slavery"]

[10] Until 1807, ships based in this English port city dominated the British slave trade. The *Zong* massacre depicted in Turner's *The Slave Ship* occurred on a ship based out of this city.

ANSWER: LIVERPOOL

[10] Wilberforce was a key member of this Anglican evangelical circle founded by Henry Venn, the namesake of the Venn Diagram. Named after the district in London where Venn was a curate, this group published the journal *Christian Observer* and worked to found Freetown in Sierra Leone.

ANSWER: CLAPHAM Sect

5. This fish comprises two species in the subclass *Actinistia*, under the clade *Sarcopterygii*. For 10 points each:

[10] Name this fish, widely heralded as a living fossil, which was thought extinct for millions of years before being found off the east coast of South Africa in 1938.

ANSWER: COELACANTH [accept COELACANTHIFORMIS and LATIMERIA]

[10] Coelacanths inhabit this lowest ecological region in a body of water, which in some cases is further subdivided into habitats like the bathyal, the abyssal, and the hadic.

ANSWER: BENTHIC zone [accept word forms, like BENTHOS]

[10] Other than the anchovy, the coelacanth is the only known animal to possess this electroreceptive organ, a gel-filled cavity in its snout.

ANSWER: ROSTRAL organ

- 6. It is said that this figure renounced his earthly throne to his son Bharata, and the Puranas say he performed acts of yoga incomprehensible to the people. For 10 points each:
- [10] Name this legendary figure from Kosala who, according to traditional teaching, founded the Jain religion and became its first tirthankara.

ANSWER: RISHABHA [or RISHAB Dev or Adinatha, or Adishvara, or Adeshvara]

[10] Some accounts hold that Rishabha's vacation of the throne set the basis for this fundamental principle of non-violence which became the cornerstone of Jainism.

ANSWER: AHIMSA

[10] An anonymous medieval text uses Rishab Dev to illustrate this doctrine of Taoism, which literally means "non-doing," and teaches that action is best achieved through inaction.

ANSWER: wu wei[or wei wu wei]

- 7. In August of 2013, this man replied "Got it," to an email from Bridget Anne Kelly which consisted of the text "Time for some traffic problems in Fort Lee." For 10 points each:
- [10] Identify this former senior official of the Port Authority of New York and New Jersey, who ordered the infamous lane closures on the George Washington Bridge going into Manhattan from Fort Lee.

ANSWER: David WILDSTEIN

[10] A recent letter written by Wildstein implicates this New Jersey governor in the scandal by claiming that he was aware of the lane closures. This Republican won re-election to a second term in 2013.

ANSWER: Christopher James Christie

[10] The closure of the Fort Lee lanes is widely believed to be retaliation against Fort Lee mayor Mark Sokolich for endorsing this opponent of Christie in the 2013 re-election campaign.

ANSWER: Barbara Buono

- 8. This character's eventual lover breaks his arm catching her after she gets thrown off her horse during a hunting trip. For 10 points each:
- [10] Name this woman who only ends up with that lover after enduring attempted rape by Lord Fellamar and the inept courtship of Master Blifil.

ANSWER: SOPHIA WESTERN [accept either name]

[10] Sophia Western is the only likable character in this 1749 novel by Henry Fielding, which focuses on her love interest, a foundling.

ANSWER: The History of Tom Jones, A Foundling

[10] In the novel, Sophia is often symbolized by this physical possession of hers, which she once leaves on Tom's bed along with a piece of paper with her name on it, as "some Punishments for his Faults." Tom values this object, as evinced by an episode in Book IV in which he passionately makes out with it.

ANSWER: Sophia's MUFF

- 9. Prior to this battle, the winning commander saw the daughters of Scedasus weeping at their tombs, but instead of sacrificing a blonde virgin as he was asked, he sacrificed a filly with a red mane that burst into his camp. For 10 points each:
- [10] Name this ancient battle which ended with the defeat and death of king Cleombrotus I.

ANSWER: Battle of Leuctra [or Leuktra]

[10] Epaminondas won a victory at Leuctra for this city-state, where his friend Gorgidas commanded an elite force consisting of pairs of male lovers.

ANSWER: $\underline{\text{Thebes}}$ [or $\underline{\text{Thebai}}$]

[10] Nine years later, Epaminondas died fighting against Spartan king Agesilaus II in 362 BC at the second battle named for this city. The Thebans were victorious after marching north to this city from Tegea, but the Greek powers were collectively weakened, paving the way for Macedonian conquest.

ANSWER: MANTINEA [Second Battle of Mantinea]

- 10. This theorem states that a dimensionally homogenous process governed by n variables can be reduced to a relation involving only k variables, where the difference n k is always less than or equal to the number of dimensions that describe the variables. For 10 points each:
- [10] Identify this theorem widely applicable in fluid mechanics, where it is used to derive many relevant dimensionless parameters

ANSWER: BUCKINGHAM PI theorem [accept either or both]

[10] The dimensionless Reynolds number is derivable from the fluid equation representing this principle. This fact can be written as density times the time derivative of the velocity field is equal to density times gravity, minus the gradient of pressure, plus viscosity times the Laplacian of the velocity field.

ANSWER: CONSERVATION of LINEAR MOMENTUM [accept MOMENTUM EQUATION]

[10] The Grashof number, derivable from the nondimensionalization of the energy conservation equation, gives the ratio of this type of force to the viscous force. This hydrostatic force is given by Archimedes' principle that a submerged body experiences a force equal to the weight of the displaced fluid.

ANSWER: BUOYANCY OF BUOYANT force

- II. This artist showed the title poetess throwing herself off a cliff into the sea in his 1801 canvas *Sappho at Leucate*. For 10 points each:
- [10] Name this painter who depicted his most famous subject fighting at the battles of Aboukir and Eylau and visiting a mosque during the Egyptian Campaign where he touches a man's armpit.

ANSWER: Antoine-Jean Gros [or Jean-Antoine Gros]

[10] Antoine-Jean Gros's first commissioned painting showed Napoleon at this location waving a flag and holding a sword inscribed "*Armée d'Italie*". The painting shows Napoleon about to plant the French tri-color on this structure.

ANSWER: PONT D'ARCOLE [or BRIDGE OF ARCOLA]

[10] Gros modeled the composition of *Napoleon Visiting the Plague House at Jaffa* on this canvas by his teacher Jacques-Louis David, which shows the three title Roman brothers swearing to fight a ritual dual against three brothers from Alba Longa. ANSWER: OATH OF THE HORATII [or LE SERMENT DES HORACES]

- 12. This man was a member of the Krahn tribe, and resentment toward Americo-Liberians fed his rise to power. For 10 points each:
- [10] Identify this dictator of Liberia from 1980-90 who established the People's Redemption Council. He was overthrown by rebels including Prince Johnson, who filmed his torture and may have eaten his ear.

ANSWER: Samuel Kanyon <u>Doe</u>

- [10] This archipelago was once known as the "Cannibal Isles." The Guinness World Record for most prolific cannibal is held by Ratu Udre (ON-dray ON-dray), a chief at Rakiraki on Viti Levu in this group, who ate between 872 and 999 people. ANSWER: FIJI Islands
- [10] This president known as the "Butcher of Uganda" was rumored to have eaten some folks during his eight year rule after deposing Milton Obote in 1971.

ANSWER: Idi Amin Dada

- 13. She wrote about the failed salon hostess Sophia Grieve, her son Wendell, and the rest of the Ryder family in a novel that parodies the styles of different writers in every chapter. For 10 points each:
- [10] Name this American novelist who wrote about Robin Vote's lesbian relationships with Nora Flood and Jenny Petherbridge after leaving her husband Baron Volkbein in *Nightwood*.

ANSWER: Djuna Barnes

[10] This other American writer identified herself as "queer" as distinct from "lesbian". She recreated Don Quixote as a post-structuralist woman in New York and wrote the novel *Blood and Guts in High School*.

ANSWER: Kathy Acker [accept Karen Lehmann]

[10] This Modernist writer had a notable relationship with Alice B. Toklas, and her poem *Sacred Emily* includes the line, "Rose is a rose is a rose is a rose is a rose."

ANSWER: Gertrude STEIN

14. According to this company's website, its students Robert Bolle and Massimo Murru re-elevated the faltering status of male ballet dancers in the 1990s. For 10 points each:

[10] Name this ballet school, once directed by the maestro Carlo Blasis, an offshoot of Milanese opera company headquartered at a building with a famous *loggione* where concerts begin on St. Ambrose's Day.

ANSWER: LA SCALA Theater Ballet

[10] This Italian ballet virtuoso, best known for devising and naming a rigorous method of ballet instruction, collapsed and died while teaching a class at La Scala.

ANSWER: Enrico CECCHETTI

[10] La Scala dancer Carla Fracci created the role of Elvira in this Russian choreographer's ballet *Don Giovanni*. He took over for Nijinsky as male lead of Ballet Russes and choreographed *Parade* and *The Three-Cornered Hat*.

ANSWER: Leonide MASSINE [or Leonid Fyodorovich MYASIN]

15. Answer the following questions about topology. For 10 points each:

[10] In topology, two continuous functions from one topological space to another are described by this term if there exists a smooth, continuous deformation from one to the other.

ANSWER: <u>HOMOTOPIC</u> [accept word forms]

[10] This basic result of algebraic topology guarantees the existence of a group isomorphism between the k-th homotopy group of a topological space X to the k-th homology group of that space X.

ANSWER: Hurewicz's theorem

[10] Hurewicz's theorem builds on earlier results by this mathematician, who conjectured that every simply-connected, closed 3-dimensional manifold is homeomorphic to the 3-sphere.

ANSWER: Henri Poincaré

16. A famous member of this pre-Socratic school of philosophy was Melissus of Samos. For 10 points each:

[10] Name this school of philosophy founded by Parmenides in the early fifth century BCE, which rejected the epistemological validity of sense experience. Prominent members of this school included a formulator of paradoxes named Zeno.

ANSWER: ELEATIC school

[10] According to Diogenes Laertius' Compendium of the Lives and Opinions of Philosophers, Aristotle recognized Zeno as the inventor of this philosophical method, the general concept of seeking truth via logical investigation.

ANSWER: DIALECTIC

[10] This Platonic dialogue featuring an unnamed "Stranger" was intended, along with its companion dialogues *Statesman* and *Philosopher*, to be part of a trilogy that explained how to achieve mastery of the dialectic method.

ANSWER: The Sophist

17. This man turned to war after the federal government killed his friends in the Bascom Affair, and he succeeded his father-in-law and comrade-in-arms Mangas Coloradas as chieftain of his people. For 10 points:

[10] Identify this chief who fought Californians under James Carleton, and surrendered to George Crook in 1871 but then escaped.

ANSWER: Cochise

[10] Cochise belonged to these Native American peoples. Another of their leaders was Geronimo, who eluded capture for many years after the surrender of Cochise.

ANSWER: Chiricahua Apache

[10] Before his surrender, Cochise hid out in these mountains, which lend their name to skirmishes in which Apache fought Confederate soldiers. Wyatt Earp's Vendetta Ride later killed Fiorentino Cruz in the South Pass in these mountains.

ANSWER: Dragoon Mountains [accept Bolas de la Peñascosa]

18. The kinetics of forming these structures has been modeled as the differential equation k times one minus theta equals d

theta dt. For 10 points each:

[10] Name these spontaneously-formed, closely-packed strata of atoms and molecules, often resulting from thiole and silane "head groups" attaching themselves to a substrate.

ANSWER: SELF-ASSEMBLED MONOLAYERS [prompt on partial answer; accept SAM]

[10] This phenomenon of atoms, ions, or molecules adhering to surfaces underpins monolayer and film formation. It is explained by the BET and Freundlich isotherms.

ANSWER: ADSORPTION [accept word forms, though be careful to not accept "absorption"]

[10] These structures consisting of one or more monolayers of some organic material are formed when the solid substrate is dunked into a liquid, resulting in surfactants acting at the air-water interface. They are named for an American chemist and his unsung female assistant.

ANSWER: LANGMUIR-BLODGETT films [or LB films; prompt on LANGMUIR films]

19. The speaker claims "Our skin has more bird peckings than if it were sewed" before repeating the refrain "But pray that God absolves us all!" For 10 points each:

[10] Name this poem whose speaker implores, "Brothers, men who live after us, / Let not your hearts be hardened against us" and asks "let no one laugh at our misfortune" when the title group's bones "have become cinder and powder."

ANSWER: "Ballad of the Hanged Men" [or "Ballade des Pendus"; or "L'Épitaphe de Villon"; or "Frères humains"]

[10] This French poet and criminal wrote "Ballad of the Hanged Men" and included the line "where are the snows of yesteryear?" in his collection *Le Testament*.

ANSWER: Francois VILLON

[10] Villon's immortal line "where are the snows of yesteryear?" derives from this Pre-Raphaelite poet's English translation of "The Ballad of Dead Ladies". His own poems include "Beata Beatrix".

ANSWER: Dante Gabriel Rossetti

20. The grace notes and trills of one of these pieces led to its nickname, *The Bird*, and another's unusual opening phrase inspired the correspondingly unusual moniker *How Do You Do?* For 10 points each:

[10] Name these pieces, which include one which follows up a grand pause with a sudden forte sixteenth note in executing its nick-namesake "Joke," that was part of a subset dedicated to the future tsar Paul I.

ANSWER: $\underline{\text{STRING QUARTETS}}$ by Joseph $\underline{\text{HAYDN}}$ [prompt on partial answer, reverse-prompt on "Russian quartets," which is the subset being described]

[10] The second movement of Haydn's *Emperor* quartet quotes from his earlier anthem "Gott erhalte Franz den Kaiser," which became the melody for this Weimar, West German, and unified German national anthem.

ANSWER: "Deutschlandlied" [or "Das Lied der Deutschen"; or "Deutschland, Deutschland uber alles," or "The Song of the Germans"; or "Germany, Germany above all"]

[10] Haydn subverted audience expectations in his *Sun Quartets* by making the finales of three of them these kinds of movements, which according to Donald Tovey signified the rejection of rococo music norms.

ANSWER: FUGUES

Extra Bonus

21. This play opens with Trock Estrella telling Shadow that he only has six months to live, and frequently makes indirect reference to the Sacco and Vanzetti case. For 10 points each:

[10] Name this play which deals with the aftermath of a murder committed by Estrella for which Bartolomeo Romagna was falsely imprisoned and executed.

ANSWER: WINTERSET

[10] Winterset is a verse play by this American author, who also historically-inspired works like *Elizabeth the Queen* and *Anne of the Thousand Days*.

ANSWER: James Maxwell Anderson

[10] Anderson penned this 1937 play, which inspired a conservation movement to prevent the title New York City mountain from being quarried. Its characters include the owner of the mountain, Van Van Dorn, as well as several ghosts from a Dutch shipwreck on the Hudson River.

ANSWER: HIGH TOR

