



ACADEMIC COMPETITION FEDERATION

2015 ACF NATIONALS
PACKET BY UCSD A

TOSSUPS

1. A work titled *The Future of this book's* author argues that its "plastic" thought easily allows for the theory of temporality to be applied to European philosophy - that dissertation on this book is by Catherine Malabou. In 1866, William Torrey Harris founded the *Journal of Speculative Philosophy* to explicate this text's ideas, such as the "Notion of the Thing," as part of the St. Louis school. Jacques Lacan's theory of desire was inspired by a series of lectures about reading this work, which discusses how a certain figure's quest for self-mastery is caused by his need for recognition since that need is greater than the fear of death; those lectures on it were delivered by Alexandre Kojève. This text uses the term "sublation," or *aufhebung*, to describe the movement from opposition to unification, through a dialectical process. For 10 points, name this philosophical book authored by Georg Wilhelm Friedrich Hegel.

ANSWER: The Phenomenology of Spirit [or Phenomenology of Mind; or Phänomenologie des Geistes]

2. Michael Bader developed cache-oblivious algorithms feature matrices whose element order is based on this type of function. Exotic examples of these functions include Dekking's Church, an entity surrounded by "fudgeflakes," the Harter-Heighway dragon, and Bill Gosper's "flowsnake." E.H. Moore modified the procedure to make one of these functions to incorporate its looping step early, but that made its underlying L-system representation more complex. If a space is compact, connected, locally connected, and second countable, then one of these functions exists for that space by the Hahn-Mazurkiewicz theorem. Procedures for making these functions with Hausdorff dimension of two have been given by Waclaw Sierpinski and David Hilbert. A mapping from the unit interval to the unit square comprises, for 10 points, what shapes discovered by Giuseppe Peano that completely pervade a square?

ANSWER: space filling curves [or space filling transformation; or a Peano space until it is read, prompt on "fractals"]

3. A character with this job states that he had a vision of a child who died less than two weeks ago being borne up to heaven while talking to the child's mother. That man with this job uses the examples of Darius drunkenly shooting his knight's son, Cyrus destroying the river Gysen, and a judge condemning three knights to their death as examples of the negative effects of anger. In that story, a member of this profession puts his hand down Thomas's back in order to receive a gift that he can divide evenly. The prologue to that story depicts an angel asking Satan to lift his tail, after which 20,000 of these people fly out of his ass. A squire suggests that a man of this profession acquire a cartwheel to perform the aforementioned division when the gift turns out to be a fart. The Summoner tells a mocking tale about members of this profession after one of them tells a similar tale about a summoner. For 10 points, the Wife of Bath's tale is followed by a tale by a member of what mendicant religious occupation?

ANSWER: friars [or frere; or limiter; or lymytour]

4. This city is the setting of the psychedelic anti-war film *Throw Away Your Books, Rally in the Streets*. A "sonata" named for this city follows a man who dresses up in a suit and leaves his home every morning to continue the charade that he is still employed. The Italian aircraft designer Caproni inspires Jiro to study at a university in this city in a film which takes its title from a Paul Valéry poem, *The Wind Rises*. While leaving a café in this city, a deaf-teenage girl flashes her crotch at the boy who hit on her in one of the storylines from Alejandro González Iñárritu's *Babel*. A couple takes a guided bus tour then climbs stairs to go to the roof of a department store to see a panorama of this city; in that film the couple's daughter-in-law, but not their son, shows them hospitality when they visit this city. The now defunct Studio Ghibli was based in, for 10 points, what city, the setting of many of Yasujiro Ozu's masterpieces?

ANSWER: Tokyo

5. One letter addressed to this ruler discussed the problem of merchants who mingle among pilgrims, demanding that those false pilgrims pay road tolls, while another letter addressed to him discussed the expulsion of a priest for eating meat during Lent. This king expanded his territory by winning the Battle of Bensington, and founded an abbey at Winchcombe, which contains the Monk's Walk. He convinced Pope Adrian I to split the Archdiocese of Canterbury into two halves. His daughter was set to be married to Charles the Younger, until it was called off because this ruler offended Charlemagne. This king introduced the silver penny as currency during his reign, and depicted his allegedly-evil wife Cynethryth on the coin. He took power by defeating Beornred in a civil war after the murder of Aethelbald in 757 CE. This king is also known for marking the boundary between Wales and his territory by digging a 149-mile long series of ditches. For 10 points, name this great king of Mercia who built his namesake Dyke.

ANSWER: Offa of Mercia

6. This deity is celebrated at a festival in which men place barley seeds on their caps or behind their ears. The Hindustani equivalent of the pentatonic ragam *Shudhha Saveri* is named for this deity. Guru Gobind Singh wrote a ballad about this deity titled *Chandi di Var*. While sipping from a wine cup, this goddess slew Mahishasura with a trident, when that demon attacked her as a buffalo. In Gujarat, her worship takes the form of the *garba* dance during the festival of Navratri. A temple dedicated to her is called the National Temple of Bangladesh. Her namesake *puja* involves immersing her idol in water, starting the same night as Navratri, which celebrates the nine forms of this goddess of Shakti. Commonly depicted riding a lion or a tiger, this goddess resides on Mount Kashi as a form of Parvati, along with her husband Shiva. For 10 points, name this invincible Hindu goddess who represents the victory of good over evil.

ANSWER: Durga [or Narayani; or Padmanabha-Sahodari; or Parvati or Shakti until "Mahishasura" is read and prompt thereafter; prompt on "Devi"]

7. This character and an assistant are told a story in which a man finds a jar of formaldehyde containing an adult's amputated vestigial sixth fingers. This character's roommate tells him a story in which the roommate's father encounters a jazz pianist who possesses a "death token" that allows him to see people's auras. This character has a bizarre erotic dream in which the two girls he's having sex with suddenly morph into that roommate, who later disappears and leaves this character a box set of Liszt piano suites. This character's girlfriend is a travel agent named Sara who helps him book tickets to Finland, where he meets the sculptor Edvard Haatainen. After much searching, this train station designer learns that a fabricated rape accusation was what led his college friends, who went by nicknames meaning "red", "blue", "white", and "black", to cut off all contact with him. For 10 points, name this "colorless" character whose "years of pilgrimage" are chronicled in a 2013 novel by Haruki Murakami.

ANSWER: Tsukuru Tazaki [accept either underlined portion]

8. Antibodies to an enzyme in this family produce the P-ANCA staining pattern around the nucleus in rapidly progressive glomerulonephritis. That enzyme in this family is responsible for the green color of green sputum. One family of these enzymes is characterized by a catalytic triad of glutamine, tryptophan, and selenocysteine. Along with lysozyme and lactoferrin, an enzyme in this family kills bacteria in saliva and milk. One enzyme in this family is targeted by antibodies in Hashimoto's disease and "organifies" iodine in the thyroid. One of these enzymes produces hypochlorous acid during the respiratory burst of neutrophils. They're not phosphatases, but an enzyme in this class is a commonly-used reporter enzyme in ELISA and Western blots, and was isolated from the roots of horseradish. These enzymes act on the same substrate as catalase, and catalyze the production of two alcohols by breaking an oxygen-oxygen single bond. For 10 points, name these enzymes that facilitate the breakdown of H₂O₂.

ANSWER: peroxidase [or haloperoxidase; or lactoperoxidase; or myeloperoxidase; or glutathione peroxidase; or horseradish peroxidase]

9. One member of this circle discussed the sociology of creating art in *Art Worlds* and examined a semi-professional jazz group that gave rise to the "culture of a deviant group" in his book *Outsiders*. Another member of this group pioneered Grounded Theory with Barney Glaser. A third member examined "pioneers of German social policy" who sought to secure a welfare state in his book *The Cameralists*, while another member outlined the commuter zone, residential zone, and the working men zone as part of his Concentric Zone model. This group included Howard Becker, Anselm Strauss, Ernest Burgess and Albion Small, the last of whom established it. Another of its influential members laid the groundwork for symbolic interactionism with his book *Mind, Self, and Society*. For 10 points, George Herbert Mead was a member of what group of sociologists that all taught at a certain university in the Midwest?

ANSWER: University of Chicago

10. In one battle, this ruler sent his soldiers out wearing crowns of laurel to appear as holy avengers of Apollo against an enemy force that drowned en-masse trying to reach the ships of Chares. He received the news that his wife gave birth to a son at the same time as a report that his racehorse won the Olympic Games. The historian Theopompus lambasted him for getting drunk in the daytime, in a digression-filled 58-book history of his rule. This man lost his right eye besieging the city of Methone, and defeated Onemarchos at the bloodiest engagement in Greek history, the Battle of Crocus Field. At the celebration of his daughter Cleopatra's wedding to Alexander of Epirus, this man was assassinated by one of his seven bodyguards, Pausanias. This man established the League of Corinth after winning a battle where the companion cavalry that broke the Sacred Band was commanded by his eighteen-year old son. For 10 points, name this King of Macedon, the father of Alexander the Great.
ANSWER: Philip II of Macedon [prompt on "Philip"]

11. Dominick Argento modeled *From the Diary of Virginia Woolf* on one of this composer's song cycles, which sets eight poems by Adalbert von Chamisso. This composer used the enigmatic marking "Im Legenden Ton" for the middle section of the first movement of his Opus 17 *Fantasie*. His F minor piano sonata was originally published under the title "Concerto Without Orchestra." This composer wrote a cycle of nine short piano pieces about a forest which includes "Vogel als Prophet," as well as the song cycle *A Woman's Life and Love*. He composed "The Happy Farmer," a piece often taught to new piano players, for his Opus 68 *Album for the Young*. Another of his piano works includes a depiction of people playing Blind Man's Bluff, and begins with the movement "Of Foreign Lands and Peoples." For 10 points, name this German composer whose *Scenes From Childhood* includes "Träumerei" ("TROY-mehr-eye").
ANSWER: Robert Schumann

12. This is the first word in the name of a form of spectroscopy which uses Couette flow cells to orient samples. This kind of molecule must be in either the C-sub-infinity-v or D-sub-infinity-h point groups. The rotational partition function for this type of molecule equals temperature divided by the product of the rotational temperature and the symmetry number. In rotational spectroscopy, molecules are classified as this type, or as one of three different types of tops. This type of molecule with N atoms only possesses 2 rotational degrees of freedom, meaning it has a total of 3N-5 vibrational degrees of freedom. This is the first word in the name of a method from quantum chemistry which constructs molecular orbitals using a quantum superposition of atomic orbitals. For 10 points, a molecule which only possesses sp-hybridized orbitals adopts what VSEPR geometry, in which the bond angles are all 180 degrees?
ANSWER: linear

13. A black employee of this company named Roscoe Conkling Simmons advised Warren Harding on matters of race. This company funded a 1929 trans-Arctic flight that ended in disaster when the plane was destroyed by ice and the crew was rescued by Canadians. This newspaper illegally obtained a copy of the Treaty of Versailles and gave it to William Borah to read on the Senate floor, and antagonized the government by announcing in 1942 that Japan's naval code had been broken. This paper took an isolationist turn under its editor Robert R. McCormick, who called it the "American Paper for Americans." An incident in this newspaper's history was captured in a photograph taken at St. Louis Union Station, and depicts a jubilant incumbent telling the press "That ain't the way I heard it" and holding up a copy of this paper. For 10 points, name this newspaper that reported on the results of the 1948 presidential election with the incorrect headline "DEWEY DEFEATS TRUMAN."
ANSWER: Chicago Tribune

14. A section of this poem claims that "morality is water on the brain" and that "everyone in the world was doomed to happiness" after saying its author "became a fabulous opera." This poem's speaker says that "I learned the magic of Felicity," which "enchants us all," asking "O seasons, O chateaus! Where is the flawless soul?" Its first section contains the declaration "I will be brutal and indolent" before it mentions "ferocious invalids home from the tropics". The speaker calls this work "a few foul pages from a damned soul" in its first section, which opens with a declaration that the speaker's life was once "a banquet where very heart revealed itself." The speaker of a subsection of this larger work claims "what was unutterable, I wrote down." The speaker of this extended poem says "A black, E white, I red, O blue, U green" and declares "I invented colors for the vowels!" For 10 points, name this extended prose poem with two sections titled "Delirium," written by Arthur Rimbaud.
ANSWER: "A Season in Hell" [or "Une Saison en Enfer"]

15. Several sites at this national park, including its science and learning center, are named in honor of the biologist Adolph Murie, while the newly-built visitor center is dedicated to the pilot Ben Eielson. During a trip called the “Voyage of Understanding,” Warren G. Harding rode in a railroad car named for this national park, which was established through a bill introduced in Congress by James Wickersham at the urging of Charles Sheldon. This park is home to the mosquito-infested Wonder Lake, as well as the Foraker River and the Toklat River, which winds its way west of the Kantishna Hills. Sightings of Dall sheep are common at this park, which contains the Stampede Trail and a famous exhibit of interlocking moose antlers. The name of this park means “the High One” in the Athabaskan language, and its train links the cities of Fairbanks and Anchorage. For 10 points, name this national park which contains Mt. McKinley.

ANSWER: Denali National Park and Preserve

16. Members of this movement produced paintings capturing their impressions as tourists in the “Prague Project.” The desert, sea waves and lunar craters are the subject of texture paintings by this movement’s Latvian member, Vija Celmins. A female artist from this movement created *vanitas* paintings, such as one that juxtaposes an hourglass, a candle, and a calendar titled *Wheel of Fortune*. Another artist from this movement captured the activity of a city in a painting in which the title structures reflect the action, called *Telephone Booths*. An artist from this movement worked in a wheelchair with a paintbrush strapped to his wrist, after he became quadriplegic. This movement included Audrey Flack, Richard Estes, and an artist who painted grids of tiles filled with shapes which, viewed from afar, look like faces. For 10 points, name this movement to which Chuck Close belonged, which made paintings that resembled camera images.

ANSWER: photorealism [or hyper-realism; or super-realism]

17. This ruler annulled his daughter’s marriage when her suitor could not pay an outrageous bride price consisting of 50,000 horses, 10,000 cows and camels, and 100,000 sheep. He erected six large stone panels across his empire to honor his six favorite horses. Whenever this ruler became sick, his wife would visit him carrying poison in her belt so she could commit suicide at a moment’s notice. This husband of Empress Zhangsun was dissuaded from making sacrifices at a sacred mountain that shares his name by his minister Wei Zheng. This ruler launched an attack on the Xiyu States in the Tarim Basin after subjugating the Ashina dynasty in charge of the Eastern Turkic Khaganate, and also invaded the Goguryeo Dynasty of Korea. He came to power after ordering his men to assassinate his brothers at the Xuanwu Gate. This ruler succeeded Li Yuan, aka Emperor Gaozu, and proceeded to conquer much of Central Asia as far as present-day Kazakhstan. For 10 points, name this second emperor of the Tang Dynasty.

ANSWER: Tang Taizong [or Li Shimin; or T’ai-Tsung; prompt on “Li” or “Shimin”]

18. A character in this novel writes the French words “A bientôt,” meaning “see you soon,” on the guidebook of a woman she secretly follows to a rock overlooking a gulf. The protagonist of this novel jokes that her complexion is several shades greener than that of a woman in a Bronzino portrait. In this novel’s last line, a woman breaks off a relationship by exclaiming “We shall never be again as we were!” after her lover pleads with her to refuse an inheritance bequest. The protagonist of this novel hires a valet named Eugenio and purchases the fancy Palazzo Leporelli upon relocating to Venice. The surgeon Sir Luke Strett diagnoses the terminal illness of this novel’s protagonist, whom Merton Densher agrees to marry in exchange for sex from his real lover, Kate Croy, who is desperate to escape financial dependence on her aunt Maud Lowder. For 10 points, name this novel about an English couple’s plan to swindle the American heiress Milly Theale, written by Henry James.

ANSWER: The Wings of the Dove

19. The components of the non-resonant part of one form of this quantity are given by the Kleinman relations. The phase shift arising from cross-phase modulation is proportional to the third-order component of this tensor quantity, which is also responsible for the DC Kerr effect. In centrosymmetric media, the even-order components of this quantity are zero, meaning sum frequency generation and second harmonic generation cannot occur. This tensor quantity is generalized into a series of coefficients which appear in the Taylor series expansion which characterizes nonlinear crystals. Relative permeability equals one plus another form of this quantity, which is negative for a diamagnet and positive for a paramagnet. For 10 points, name this quantity symbolized χ whose “electric” form gives the polarization of a material in response to an applied E-field, and whose “magnetic” form gives the magnetization of a material in response to an applied B-field.

ANSWER: susceptibility [or electric susceptibility; or magnetic susceptibility; or n-th order answers, such as second-order electric susceptibility or third-order electric susceptibility]

20. This man gave a cap to Amphidamas, who gave it to Molus, who gave it to his own son Meriones. This man was born when Hermes touched his mother's face to make her fall asleep, and then raped her. The *Odyssey* lists this man's wife as Amphithea, but better-known accounts have him marrying a woman whose father ran a scam in which he sold her to a series of suitors for the bride price, only to have her return by transforming into a different animal. Heracles learned the art of wrestling from this man and served three years of penance for killing this man's son Iphitus. A youth who went hunting with this husband of Mestra was scarred by a boar just above his knee, leaving a mark that was recognized by the youth's nurse Eurycleia. This man, like Hades, had a helmet of invisibility, and he once out-trickstered Sisyphus by stealing his herd. For 10 points, name this best thief in Greek mythology, who imparted his cunning to his grandson Odysseus.

ANSWER: Autolycus

TIEBREAKER

21. When this quantity becomes very large, the reflection coefficient becomes greater than one, according to the Klein paradox. The Fourier transform of this quantity gives the first-order scattering amplitude according to the Born approximation. When this quantity is proportional to a delta function, the system possesses a continuum of sinusoidal scattering states with positive energy and a single bound state with negative energy. This quantity is infinite inside of a critical radius and zero outside that radius according to the hard sphere model. This quantity is subtracted in the Lagrangian but added in the Hamiltonian. This quantity is infinite everywhere except for between 0 and L in the infinite square well or particle-in-a-box model. For 10 points, name this type of energy equal to " $m g h$ " for an object near the earth, which is symbolized V or U.

ANSWER: potential energy [or U or V until they are read; or gravitational potential energy; or electric potential energy]

BONUSES

1. In January 2015, former Nebraska senator Ben Nelson filed an amicus in this case, which originated in the 4th District and examined an IRS final ruling derived from Section 36B of the U.S. Code. For 10 points each:

[10] Name this current Supreme Court case which will consider whether the IRS has the prerogative to enact rules due to ambiguous legislative intent.

ANSWER: King v. Burwell [prompt on "Burwell"]

[10] *King v. Burwell* is one of a series of cases including *Hobby Lobby* that arose over controversy regarding this law. This law's overall constitutionality was upheld in *NFIB v. Sebelius*.

ANSWER: PPACA [or ObamaCare; or Patient Protection and Affordable Care Act]

[10] The heart of *King v. Burwell* relies on this two-pronged test, named for the Plaintiff in a 1984 case against the National Resources Defense Council, Inc. This test allows agencies to implement their own regulations as law, if legislative intent was ambiguous and the regulations are a permissible construction of the statute.

ANSWER: Chevron deference [or Chevron test; or Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.]

2. Answer the following about the paleontological evolutionary history of camels, for 10 points each.

[10] Camels, like spinks and hippowdons, belong to this order of even toed ungulates. The oldest genus of this order of animals that is recognized is *Diacodexis*, which went extinct during the Oligocene.

ANSWER: artiodactyls [or artiodactyla]

[10] One of the reasons why camels have so much physical stamina is that they developed this gait instead of trotting. In this gait, either both right legs move, or both left legs move at the same time, thereby increasing efficiency, but decreasing maneuverability.

ANSWER: padding gait [or word forms]

[10] Arabian and Indian camels are this type of camel that have only one hump. These one-humped camels have an evolutionary advantage over Bactrian camels because their surface area is decreased, decreasing their water loss rate.

ANSWER: dromedary camels

3. Lavrenty Beria investigated this man for packing seven rail carriages full of German valuables in the Trophy Affair, an affront this man repaid by helping convict Beria of treason. For 10 points each:

[10] Name this decorated general who defeated the Kwantung Army early in his career at the Battle of Khalkhin Gol, and then directed the occupation of Bessarabia.

ANSWER: Georgy Zhukov [or Georgy Konstantinovich Zhukov]

[10] Zhukov is better known for unleashing Operation Uranus during this battle, which encircled the 6th army, ending with the capture of Friedrich Paulus in the namesake city, which the Germans failed to hold.

ANSWER: Battle of Stalingrad

[10] Zhukov later defended Khrushchev against the members of the Anti-Party Group, which included this Ukrainian Jew, who was dubbed the "Wolf of the Kremlin" in a biography by Stuart Kahan. He was also known as the "Iron Lazar" for his ruthlessness as one of Stalin's deputies.

ANSWER: Lazar Kaganovich [or Lazar Moiseyevich Kaganovich]

4. The author of this book summarizes *Aucassin and Nicolette* in a chapter praising "Three Queens" for cultivating the institution of courtly love. For 10 points each:

[10] Name this 1904 book that surveys medieval French religious history by offering an extended portrait of the two title places.

ANSWER: Mont Saint-Michel and Chartres

[10] This American author of *Mont Saint-Michel and Chartres* wrote about the burden of being a descendent of two presidents in "Quincy," the opening chapter of a memoir about his "education."

ANSWER: Henry Adams [or Henry Brooks Adams]

[10] In this penultimate chapter of *The Education*, Adams predicted that, due to rapid scientific progress, "every American who lived into the year 2000 would know how to control unlimited power," and "would think in complexities unimaginable to an earlier mind." He was wrong.

ANSWER: "A Law of Acceleration"

5. In *The Dream of Rhonabwy*, this man is called “the fairest horseman of all” of a certain army, inducing troops to all flock to the rear to see him ride. For 10 points each:

[10] Name this man, who could supposedly go nine days and nights without breathing. This man is eventually slain by Gwyddawg fab Menestyr.

ANSWER: Cai [or Sir Kay]

[10] Kay is the foster brother, and later seneschal, of this man, who aids his cousin Culhwch in another Welsh tale. This son of Uther Pendragon is advised by Merlin.

ANSWER: King Arthur

[10] Sir Kay often appears alongside this one-handed Knight of the Round Table, who serves as Arthur’s marshal. After Arthur’s death, he returns Excalibur to the Lady of the Lake.

ANSWER: Sir Bedivere [or Sir Bedwyr]

6. For a periodic system, one of these variables can be derived by integrating the conjugate momenta over a full period in a path defined by the generalized coordinates. For 10 points each:

[10] Name this set of variables useful in solving integrable and periodic systems when the Hamilton-Jacobi equations are separable. They can be used to find the frequencies of the system without finding a complete solution to the equations of motion.

ANSWER: action-angle coordinates [or action-angle variables]

[10] A system often used as an example for defining the action-angles is a “simple” one of these objects, whose frequency is proportional to the square root of little g over the length when the small angle approximation is valid.

ANSWER: simple pendulum

[10] The principle of least action states that objects follow paths which yield a value for the action which has this property. In quantum mechanics, it describes states which are eigenfunctions of the Hamiltonian, thus implying that the probability density does not evolve in time.

ANSWER: stationary

7. In defiance of the church, Leo VI the Wise ensured his succession by entering a fourth marriage with a woman by this name, who had the epithet Karbonopsina, or “coal eyes.” For 10 points each:

[10] Give this name also shared by the Byzantine empress who ruled alongside her sister Theodora starting in 1042 CE after the emperor Michael V was deposed. She also later ruled with her husband Constantine IX Monomachus.

ANSWER: Zoe [or Zoe Porphyrogenita]

[10] This historian, who was an advisor to Constantine IX, tells us that Empress Zoe spent her entire day obsessed with developing new perfumes and unguents. His *Chronographia*, chronicles fourteen Byzantine rulers, ending with Michael VII Doukas in 1078.

ANSWER: Michael Psellos [or Psellos]

[10] Zoe’s first marriage to the third Holy Roman Emperor of this name failed, because he died before she arrived. His father of the same name had married Theophano. His grandfather of the same name, known as the Great, won the Battle of Lechfeld in 955 CE.

ANSWER: Otto

8. In this character’s first appearance in a 1942 story, he yells to the narrator’s cousin “In ten minutes, it will be eight o’clock, child Bernardo Juan Francisco.” For 10 points each:

[10] Name this character, who after a horse-riding accident passes his time with projects like arbitrarily naming every number and reconstructing an entire day’s worth of memories.

ANSWER: Ireneo Funes [accept either underlined portion; or “Funes the Memorious”]

[10] After it was published in *La Nacion*, “Funes the Memorious” was included in the second volume, “Artifices”, of this 1944 collection by Jorge Luis Borges. Much of the material in it overlaps with material in *Labyrinths*.

ANSWER: Ficciones

[10] This other story from the second volume of *Ficciones* is framed as a scholarly analysis of the fictional author Nils Runeberg, who wrote the controversial book *The Secret Savior*.

ANSWER: “Three Versions of Judas” [or “Tres versiones de Judas”]

9. Fritz Heider proposed the internal and external distinction for this type of psychological process. For 10 points each:
[10] Name this cognitive process, which Harold Kelley explained by creating a “cube” featuring “Time,” “Entities,” and “Persons” on its three axes.

ANSWER: **attribution**

[10] The overvaluing of internal characteristics as opposed to external characteristics is part of the attribution error described by this adjective, which was observed in an experiment where subjects read essays about Fidel Castro.

ANSWER: **fundamental** attribution error

[10] Melvin Lerner wrote about the “belief” in this sort of cognitive bias, in which a person is thought to get what he or she deserved. Linda Carli found that it colored many people’s opinions of rape victims.

ANSWER: **just-world** phenomenon

10. Saint Nicodemus gazes at a skull at the bottom of this painting, whose spandrels contain tiny crossbows, indicating it is a commission from the archer’s guild at Leuven. For 10 points each:

[10] Name this scene and its artist. In this scene, this artist depicted a servant that climbs a ladder whose foot is in front of the cross, but whose top is behind it. Also, the blue-clad Mary swoons, adopting a similar pose as her lifeless son. Name both the scene and artist.

ANSWER: Rogier **van der Weyden**’s The **Descent** from the Cross [or Rogier **van der Weyden**’s The **Deposition**; prompt on partial answers; prompt on “**Rogier**” if given in place of “van der Weyden”]

[10] During the Spanish Civil War, van der Weyden’s *Deposition* was evacuated from this museum in Madrid, which houses hundreds of paintings by El Greco, Velazquez, and Goya.

ANSWER: Museo del **Prado**

[10] Rogier van der Weyden created a massive nonaptych for a church in this French city. That altarpiece, which magnificently portrays *The Last Judgment*, was most likely painted in response to the Ghent Altarpiece.

ANSWER: **Beaune** Altarpiece

11. Two Americans died during the Battle of Quallah Battoo as part of a punitive expedition to this island led by John Downes, who circumnavigated the globe afterwards. For 10 points each:

[10] Name this island that was attacked twice by the United States, in 1832 and 1838, after local pirates and rulers massacred the crews of the *Friendship* and the *Eclipse*.

ANSWER: **Sumatra**

[10] The second Sumatran Expedition was led by Commodore George C. Reed, who served under Isaac Hull on this ship, which had accepted the surrender of the *HMS Guerriere*. Oliver Wendell Holmes wrote “Old Ironsides” to stop this ship from being decommissioned.

ANSWER: USS **Constitution**

[10] Both Downes and Reed served in the Barbary Wars, as did this New Jerseyite commodore, who was imprisoned for 19 months in Tripoli after oafishly running the *USS Philadelphia* aground on a reef. Later, he served as Stephen Decatur’s second in his fatal duel against James Barron, prompting Decatur’s wife to allege he set the duel up.

ANSWER: William **Bainbridge**

12. This character, tells the protagonist “I shall gambol, laugh and skip and sing a little song of joy” after hanging him in the incredibly difficult comic aria “Ha, wie will ich triumphieren.” For 10 points each:

[10] Name this character who at the end of the opera in which he appears releases Blonde. A chorus ends the opera by singing “let [this character’s] exalted brow be wreathed with rejoicing renown.”

ANSWER: **Osmin**

[10] Osmin is a character in this Mozart opera, which is named for a harem. Joseph II legendarily remarked that this opera had “an awful lot of notes.”

ANSWER: The **Abduction from the Seraglio** [or **Il Seraglio**; or **Die Entführung aus dem Serail**]

[10] A chorus of these figures sing *The Abduction from the Seraglio*’s final musical number, praising Osmin. A piccolo is added to the opera’s score to imitate a sound of a *zurna*, an instrument that these figures often used to make music.

ANSWER: **janissaries** [prompt on “**Turks**”]

13. This tragedy opens with Iolaus claiming that nature makes one man good while making another man wholly selfish. For 10 points each:

[10] Name this tragedy in which the Argives feud with Demophon over a group of refugees at the temple of Zeus.

ANSWER: The **Children of Herakles** [or **Heracles' Children**; or **Herakleidae**]

[10] This Argive king demands the lives of the Herakleidae but later claims that he was only following Hera's orders when he is captured and thrown to the dogs.

ANSWER: **Eurystheus**

[10] Euripides also wrote this episodic play that details the intensifying suffering of Hecuba, Andromache, and Cassandra, the title characters.

ANSWER: The **Trojan Women** [or **Troade**]

14. The Erlenmeyer rule was an early attempt at explaining this phenomenon. For 10 points each:

[10] Name this phenomenon in which the shifting of an alpha hydrogen and the movement of bonding electrons leads to the interconversion between keto and enol forms of a compound.

ANSWER: keto-enol **tautomerism** [prompt on "**isomerism**"]

[10] This compound, which is "locked" into the enol position by a phosphate group, is produced from 2-PG in the penultimate step of glycolysis. It's not pyruvate, but it is carboxylated to produce oxaloacetate in the CAM and C4 pathways.

ANSWER: **phosphoenolpyruvate** [or **PEP**; or **phosphoenolpyruvic acid**]

[10] PEP reacts with erythrose-4-phosphate to form DAHP in the first step of this compound's namesake pathway, which is responsible for the biosynthesis of aromatic amino acids in plants. This compound is the starting material for the commercial synthesis of Tamiflu.

ANSWER: **shikimic acid** [or **shikimate**]

15. Answer these questions about methods of Biblical interpretation, for 10 points each.

[10] This Greek term, which literally translates as "climb," describes the elevation of the mind to things celestial and eternal. Medieval theologians often described it as the fourth method of spiritual interpretation, separate from the literal, allegorical, and tropological.

ANSWER: **anagoge** [or **anagogy**; or **anagogical method**]

[10] Theories of typology relate events in the New and Old Testament, such as connecting Christ rising from the tomb on the third day to the fact that this prophet spent three days in the belly of a whale before being spit out.

ANSWER: **Jonah** [or **Jonas**; or **Younis**]

[10] The idea of "correspondences," or links between the written word of God and natural phenomena, was coined by this theologian in his books *Arcana Coelestia* and *Heaven and Hell*. His followers founded the Church of the New Jerusalem.

ANSWER: Emanuel **Swedenborg** [or Emanuel **Swedberg**; or Emanuel **Svedberg**]

16. The second movement of this piece consists of a set of variations in D flat major, the last of which cadences on a soft diminished seventh chord, which is repeated much louder as a transition into the finale. For 10 points each:

[10] Name this piano sonata, its composer's twenty-third, whose main theme is stated by dotted up and down arpeggios in F minor.

ANSWER: the "**Appassionata**" sonata [accept but DO NOT REVEAL, Ludwig van **Beethoven**'s Op. **57**]

[10] The *Appassionata*, *Waldstein*, and *Moonlight* sonatas were composed by this deaf German.

ANSWER: Ludwig van **Beethoven**

[10] The *Appassionata* sonata shares three characteristics – its middle period composition, its F minor key, and its usage of the Neapolitan chord – with this Beethoven string quartet, a solemn piece whose last movement is in an unusual sonata-rondo form and closes out with a coda in F major that is quite similar to the *Egmont* overture.

ANSWER: String Quartet No. **11** [or Op. **95**; or Quartett **Serioso**]

17. Book two of John Locke's *An Essay Concerning Human Understanding* argues that secondary ones are dependent on primary ones. For 10 points each:

[10] The Latin word for "of what kind" gives its name to what characteristics of a given object of person, like their color or their mass?

ANSWER: **qualities** [or word forms]

[10] A class of properties, or qualities, has this relation to another a class of properties if one cannot have a difference in the first set without also having a change in the second set. Jaegwon Kim holds that mental events have this relationship to physical events.

ANSWER: **supervenience** [or word forms, such as **supervenies**]

[10] In *The Mind and Its Place in Nature*, C.D. Broad argued for this psycho-physical theory of properties, which holds that mental properties cannot be deduced from physical properties. C.D. Broad contrasted it with mechanism.

ANSWER: **emergentism** [or word forms]

18. In this poem, mankind is said to "smile in secret, looking over wasted lands, blight and famine, plague and earthquake, roaring deeps and fiery sands, clanging fights, and flaming towns, and sinking ships, and praying hands." For 10 points each:

[10] Name this poem, whose title characters lament that "all things are taken from us, and become / Portions and parcels of the dreadful past," and declare: "O, rest ye, brother mariners, we will not wander more," in the "Choric Song."

ANSWER: "The **Lotos-Eaters**"

[10] This Victorian poet wrote dramatic monologues, such as "The Lotos-Eaters," "Tithonus," and "Ulysses."

ANSWER: Alfred **Tennyson** [or Lord **Tennyson**; or 1st Baron **Tennyson**]

[10] In this early dramatic monologue by Tennyson, the speaker secludes his soul in the title aesthetic fortress, but she begs of him to "make me a cottage in the vale," where "I may mourn and pray."

ANSWER: "The **Palace of Art**"

19. This man traveled aboard the SMS *Dresden* to exile in Jamaica, and was imprisoned at Fort Bliss after conspiring with Franz von Rintelen to regain his country. For 10 points each:

[10] Name this man who proclaimed himself dictator at the end of the Ten Tragic Days, after he had served as chief of staff in the army of the preceding president.

ANSWER: Victoriano **Huerta** [or José Victoriano **Huerta** Márquez; prompt on "the **Jackal**", "the **Usurper**", "El **Chacal**", or "El **Usurpador**"]

[10] In response to Huerta's coup, this U.S. president sent troops to occupy Veracruz. He tried to arm merchant ships after the Zimmermann Telegram, sent to the German ambassador to Mexico, was brought to his attention in 1917.

ANSWER: Woodrow **Wilson** [or Thomas Woodrow **Wilson**]

[10] During the Madero presidency, Huerta was tasked with putting down the revolt of the Colorados led by this revolutionary, who later became a staunch Huerta ally and defeated Constitutionalist armies. He was killed by law enforcement in Texas after escaping from house arrest in El Paso.

ANSWER: Pascual **Orozco** [or Pascual **Orozco** Vasquez]

20. A Rad52-dependent form of this technique is named *delitto perfetto* because it does not leave any foreign DNA in the genome. For 10 points each:

[10] Name this technique, carried out in *E. coli* deficient in uracil deglycosidase and dUTPase in a method developed by Thomas Kunkel, in which specific changes are intentionally made in the DNA sequence of a specific gene.

ANSWER: **site-directed mutagenesis** [or **site-specific mutagenesis**; or **oligonucleotide-directed mutagenesis**; prompt on "**mutagenesis**"]

[10] In a form of site-directed mutagenesis, the fragment containing the mutant is amplified using this technique, in which a mix containing a DNA template, primers, and Taq (tack) undergoes several rounds of denaturation and annealing in a thermal cycler.

ANSWER: **PCR** [or **polymerase chain reaction**]

[10] In another application of site-directed mutagenesis, the contribution of a given residue to the stability of a protein is assessed by substituting it with this hydrophobic amino acid, which in the Cahill cycle is synthesized in muscle when its namesake aminotransferase catalyzes the transamination of pyruvate.

ANSWER: **alanine** [or **Ala**; or **A**]