



ACADEMIC COMPETITION FEDERATION

2014 ACF NATIONALS
PACKET 6 BY THE EDITORS

TOSSUPS

1. In this character's last appearance, another character repeats the Swinburne line, "Let us go hence, my songs; she will not hear" to prove this character isn't paying attention. Stage directions note that this character's hands "are never still" and "one avoids looking at them" since the fingers have been deformed by rheumatism. This character has a hallucination recalling Mother Elizabeth's advice and plays an ugly rendition of a Chopin waltz offstage before her entrance in the last act, when she appears very pale with her hair braided into two pigtaileds and her wedding dress draped over her arm. She often complains about the foghorn disturbing her sleep and recalls her failed dream of being a pianist or a nun to the family maid Cathleen. This character regrets breaking a promise never to have another child after her second son Eugene dies as a baby when his brother Jamie intentionally gave him measles, and she stubbornly refuses to believe her son has tuberculosis after returning from a sanatorium to fight her morphine addiction. For 10 points, name this matriarch of the Tyrone family in Eugene O'Neill's *Long Day's Journey into Night*.

ANSWER: MARY Tyrone [prompt on "Tyrone"]

2. One account says that this Roman emperor created a "Woman's Senate" on the Quirinal Hill to deal with matters of etiquette. He took the athlete Aurelius Zoticus as a lover, and named him Master of the Chamber. His family, including his mother Julia Soaemias and grandmother Julia Maesa, hailed from Emesa and were able to bribe the Third Legion commander Publius Comazon into naming him emperor, with Comazon serving as his Praetorian prefect. He allegedly buried his guests under a pile of rose petals during an orgy, a scene which was painted by Lawrence Alma-Tadema. He also committed taboo by marrying a Vestal Virgin, Julia Severa, and he banished the jurist Ulpian from Rome. He was succeeded by Alexander Severus in 222 CE after coming to power on the death of Macrinus. For 10 points, name this last of the Antonine emperors of Rome, a notoriously decadent tyrant who castrated himself and took the name of a solar deity.

ANSWER: HELIOGABALUS [or ELAGABALUS; or Varius Avitus BASSIANUS Caesar Marcus Aurelius Antoninus Augustus]

3. This series of artworks shows "The Page" mourning the death of the "Young Syrian" captain crying, "Why did I not hide from the moon?" in a scene titled *The Platonic Lament*. The artist was commissioned to complete the whole series after only finishing its first piece *J'ai Baisé ta Bouche*, or *I Have Kissed Your Mouth*. Legible copies of Apuleius's *The Golden Ass* and Zola's *Nana* appear in a scene that was painted in two versions, and the title figure appears for the first time in a section titled *The Peacock Skirt*. A "lily of the perverse" grows from a pool of dripping blood sitting below a figure who floats in the air with medusa-like hair tendrils in a work from this series titled *The Climax*, which follows a section where the main character lewdly rips off seven veils in the title *Stomach Dance*. John Lane published this series of drawings in *The Yellow Book* without removing all the phallic images from pieces such as *Enter Herodias*. For 10 points, name this series of scandalous illustrations to an Oscar Wilde play about a biblical seductress, which were executed by Aubrey Beardsley.

ANSWER: Aubrey Beardsley's ILLUSTRATIONS to SALOME [or Beardsley's SALOME DRAWINGS; prompt on "drawings by Beardsley" or other less specific answers]

4. The COS-B satellite was the first to detect an extragalactic source emitting in this regime, while the OSO-7 satellite provided the first recording of the solar spectrum in this regime; in the sun, radiation in this regime is emitted from de-excitation of deuterium. The Solar Maximum Mission measured the spectrum of this radiation during the explosion of supernova SN1987A. The strongest source in the sky for radiation in this regime is the Crab Nebula. A typical mechanism of generating this radiation in supernovae is the decay of cobalt-56, and this type of radiation is also generated by matter accretion around black holes and neutron stars. Mechanisms suspected of generating the most intense radiation in this regime, as measured by the

BeppoSAX satellite, include neutron star or black hole collisions, resulting in the emission of this radiation via the relativistic fireball model. The predominant form of radiation in blazars, for 10 points, identify this frequency regime which contains the most powerful photons known, and which is detected in the spectrum of its namesake “bursters.”

ANSWER: GAMMA RAY

5. One “puzzle” with these quantities refers to the fact that the uncovered interest parity does not hold; that puzzle states that forward futures values for these quantities systematically seem to mispredict the sign of the movement of their spot value. These quantities were the focus of the *tablita* system of policy guidance in Argentina and Brazil. Along with free capital movement and independent monetary policy, one regime for these values represents a part of the “trilemma” of monetary policy. One implication of the aforementioned puzzle of these values is the potential for arbitrage called the “carry trade” where one can profit due to differences in the interest rates for two currencies. These values were fixed in the Bretton Woods system. For 10 points, identify these quantities which give the value of one currency in terms of another.

ANSWER: foreign EXCHANGE RATES [accept foreign EXCHANGE POLICY]

6. A contemporary biography of this man was written by Nicholas Bernard, who preached his funeral oration, and circulated his writings such as his tract *The Power Communicated by God to the Prince*. This bishop became embroiled in controversy when he preached a sermon calling for enforcement of the Recusancy Acts at the swearing-in of Henry Cary. After briefly serving as Bishop of Meath, he succeeded Christopher Hampton as Archbishop of Armagh. This man released a roughly two-thousand page text known as *Annals of the World*, written after he’d been named as Primate of All Ireland. His text claimed that, based upon the timing of events like Nebuchadnezzar’s Death and Noah’s Flood, the creation of the world must have happened on an October night in 4004 BC. For 10 points, name this Irish archbishop who, around 1650, created a chronology for the history of the world that was appended to the King James Bible.

ANSWER: James USSHER [or Usher]

7. This poet anagrammed the name of a detested politician as “Algrind” in a poem where Algrind is killed by an eagle dropping a shellfish on his bald head. The speaker of one of this author’s poems eliminates the classical elements one by one when pondering “what substance was the mould” for a woman’s beauty, before deciding it was the sky, because “to the heaven her haughty looks aspire.” Scholars remain unsure about the true identity of this poet’s collaborator “E.K,” who wrote an epistle heralding this man as a “new poet” in a book which begins by beseeching: “go, my book, thy self present as Child whose Parent is unkent.” This poet admitted that his “soules long lacked foode” in “Happy ye leaves when as those lilly hands.” This poet’s first book consists of a set of pastorals tracing the rural life of Colin Clout for twelve months. This poet penned a sequence of eighty-nine sonnets describing his courtship of Elizabeth Boyle. For 10 points, name this 16th-century poet who wrote *The Shepheardes Calender* and the *Amoretti*.

ANSWER: Edmund SPENSER

8. This military commander captured the vessel *Marmaduke* and made it his flagship after renaming it *Revenge of Whitehall*. His mistress late in life was the actress Margaret Hughes. During his time as a pirate, he led a naval revolt which fought at Kinsale and then moved to Lisbon under protection of Portuguese king Afonso VI, until he was forced to take his piracy to the Mediterranean with his brother Maurice. He was ridiculed in cartoons as a warlock, because he was often followed by a large white poodle named Boy rumored to be his familiar. He served as the first governor of the Hudson’s Bay Company, and his interest in scientific experiments led him to develop the art of mezzotint printmaking in England. This man, who led a winning cavalry charge at Edgehill, was the son of Elizabeth Stuart and the elector Palatine, Frederick V. For 10 points, name this commander who lost at Marston Moor and Naseby as the primary general for the Royalist army under King Charles I.

ANSWER: Prince RUPERT of the Rhine

9. Building on research by Hori and Sharpless, chemists sometimes instigate these reactions in allylic selenides by using anhydrous Chloramine T in methanol as a reagent. Selenoxides can perform them at much lower temperatures than sulfoxides. One molecule that easily undergoes reactions of this kind was named after the fearsome lecturer William “Bull” Doering; that molecule is bullvalene. This kind of reaction converts pre-cholecalciferol to cholecalciferol in the presence of heat. One of these reactions is immediately followed by an imine converting to an aminoacetal in the Fischer indole synthesis. The “walk” reaction of this kind involves three-membered rings in bicyclic compounds. Keto-enol tautomerization is induced in the “oxy-

” variant of another reaction of this kind, and the most famous one involves heating an allyl vinyl ether. These reactions are named using two numbers enclosed in brackets, like in the [1,3]-hydride and alkyl shifts, or the [3,3]-Cope and Claisen reactions. For 10 points, name these pericyclic reactions in which the namesake kind of bond changes, allowing a substituent to move across the pi bond system.

ANSWER: SIGMATROPIC reactions [or SIGMATROPIC rearrangements; or SIGMATROPIC shifts; prompt on “rearrangements”; prompt on the “Cope rearrangement” or other specific types mentioned in the question; prompt on “pericyclic” reactions before they are mentioned]

10. Niccolò Zingarelli was once imprisoned in this city for refusing to compose a *Te Deum*. In 1905, a music school in this city was embroiled in a scandal when it administered a preliminary contest whose six finalists were all students of one of the jurors on the panel. One symphony that was premiered in this city contains a second theme in which a solo oboe plays repeated dotted notes against the jolty appoggiatura of the first violins. Piano manufacturer Ignaz Pleyel funded the creation of a concert hall in this city. In the 18th century, this city was home to a large number of “Spiritual Concerts,” one of which served as the public premiere for a three-movement symphony whose original 6/8 *andantino* movement was replaced with a 3/4 *andante*. Mozart’s 31st symphony was nicknamed for this city, which gives the collective nickname to *In Nomine Domini*, *The Queen*, *The Bear*, and *The Hen* and two other symphonies by Haydn. For 10 points, name this city where a raucous riot broke out at the premiere of *The Rite of Spring*.

ANSWER: PARIS

11. One of the first reported acts of this group was a raid on the Swiss Gun Club, which provided them with a supply of weapons. The death of a student protester named Liber Arce at the national university spurred on this group, who later kidnapped the Secretary of Agriculture Claude Fry. They funded their activities with a 42,000 pound ransom they received from taking hostage the British ambassador Geoffrey Jackson. Although it was reportedly accidental, this group’s members also killed Dan Mitrione, an Indiana-born FBI agent who specialized in counter-insurgency tactics. Their leader was a lawyer who sought to unionize sugarcane workers, named Raúl Sendic, who turned this movement violent after President Jorge Pacheco suspended the constitution. For 10 points, name this guerilla group active in the early 1960s and 70s in Uruguay, who named themselves in honor of a certain Peruvian revolutionary, who in turn named himself for the last ruler of the Incas.

ANSWER: TUPAMAROS [or MLN-T or the NATIONAL TREASON MOVEMENT or “Movimiento de Liberación Nacional-Tupamaros”, or “Tupamaro National Liberation Movement”]

12. In an interview, Robert Brandom argued that this concept was an “attempt to show that asymmetric cognitive relations are metaphysically defective.” Simone de Beauvoir explicitly drew on this concept in the first chapter of Part II of *The Second Sex* to explain gender relations. In his commentary on the philosopher who introduced this idea, Alexander Kojève argued that this concept, viewed as a struggle for “recognition,” was central to its formulator’s philosophy, and that its resolution would bring about “the end of history.” First introduced in its formulator’s *The System of Ethical Life*, the work in which this concept was explicitly outlined claims that “self-consciousness exists in itself and for itself,” and that one figure referenced by this idea “is mediated with itself through another consciousness;” thus, the first figure is independent, while the second is dependent. For 10 points, identify this key concept which shares its name with the passage from Hegel’s *Phenomenology of Spirit* in which it’s introduced, and which explores the interdependence of the two titular types of individuals.

ANSWER: MASTER-SLAVE DIALECTIC [do not prompt on or accept “master-slave morality,” a different concept from Nietzsche, accept LORD-BONDSMAN DIALECTIC or MASTER-BONDSMAN DIALECTIC]

13. A city in this region was founded by a group of people who came upon an olive tree with a serpent at its base and an eagle in its branches, and then sacrificed the eagle to Poseidon and Zeus. A queen instructed her attendants to throw several bags full of sand into the sea here. One king in this region, the twin brother of Belus, sent either Thasus and Phineus along with Cilix to hunt down his daughter after she was abducted by Zeus, who ordered Hermes to drive that king’s cattle down to the seashore. Heracles was identified with a major god from this region, Melqart. A prince born in this region was told by the Delphic oracle to follow a cow and to settle wherever the cow lay down. A priest from this region was murdered because he concealed vast quantities of treasure underground, and because he had been sleeping with the wife of King Pygmalion. After Sychaeus was killed in this region, his lover sailed west with her followers and established a new home in North Africa. For 10 points, name this region, the original home of Dido, the queen of Tyre.

ANSWER: PHOENICIA [accept TYRE before mentioned; accept SIDON]

14. In electromagnetism, a covariant generalization of the Hamiltonian density is known as the “canonical” one of these objects. Another electromagnetic one of these objects is formed from the sum of the dyadic product of the electric field, the dyadic product of the magnetic field, and a term proportional to the difference of the squares of the field strengths; that one is named after Maxwell, and has components quadratic in electric and magnetic field intensities. One of these objects is work-conjugate to the rate of the deformation gradient, while another of these objects transforms the first one to give a symmetric object that is work-conjugate to the strain rate; these two objects are known as the first and second Piola-Kirchhoff ones. Another one of these objects which couples the normal vector to the traction vector is named for Cauchy. For 10 points, identify these mathematical objects from continuum mechanics which represent the internal forces generated in response to deformation.
ANSWER: STRESS TENSOR [prompt on partial answer; do not accept or prompt on “stress-energy tensor”]

15. This author’s characters include a man who calls his mother’s prayer group “The Four Horsefaces of the Apocalypse” and a girl who every morning writes the phrase “tarde venientibus ossa,” or “to the latecomers are left the bones.” In one of his stories, the protagonist is so disgusted by his father’s new Volkswagen van that he vomits out of the passenger seat window. This author wrote a story about the hospital laundry worker Yasmin, who intercepts the letters sent to her married lover by his wife. He began his first collection with a story about a boy whose face has been eaten by a pig, titled “Ysrael.” This author included the story of “Poor Abelard,” the father of the cancer-stricken Belicia Cabral, in a novel that begins by explaining the *zafa*, a counterspell to the *fuku* curse. He continued the story of the character Yuniór from that novel in his collections *This is How You Lose Her* and *Drown*. For 10 points, name this Dominican-born author who wrote about a nerd’s quest to lose his virginity in *The Brief Wondrous Life of Oscar Wao*.
ANSWER: Junot DIAZ

16. An oft-quoted passage about this figure describes him as a “kaleidoscope gifted with consciousness” who is able “to be at the center of the world, and yet to remain hidden from the world.” In *On Photography*, Sontag argues that the hand-held camera is “an extension of the eye” of this figure, and the photographer is “the armed version” of this figure who tries to uncover “an unofficial reality behind the façade of bourgeois life.” Balzac defined this figure’s practice as “the gastronomy of the eye.” Walter Benjamin argues he combines “the casual eye” with “the purposeful gaze of the detective” in *The Arcades Project*, which examines this figure as the essential modern urban spectator. Differentiated from a dandy because he is not blasé, this figure was the topic of a famous passage in *The Painter of Modern Life* where Baudelaire defined him as “the passionate spectator” exulting, “the crowd is his element.” For 10 points, name this French word for a “stroller” that became an archetype for the idle man of leisure in 19th-century Paris.
ANSWER: FLÂNEUR

17. Land rights in this current US state were fought over in the Malta War, and it was home to a shoemaker’s strike in 1937 called the Battle of the Bridge. Tourism to this state was promoted by Cornelia Crosby, known as “Fly Rod” because she always had that bamboo rod in her hands. The life of Martha Moore Ballard in this state, and her daily domestic activity, was chronicled by historian Laurel Ulrich in the book *A Midwife’s Tale*. The loyalist John Calef launched a scheme to found a British colony in this state called New Ireland. Later, Mayor Neal Dow tried to enforce prohibition in this state by a namesake law which led to the June Riot, aka the Rum Riot. Its native sons include Speaker of the House Thomas “Czar” Reed and Hannibal Hamlin, and a female politician who gave the “Declaration of Conscience” speech in reply to Joseph McCarthy. For 10 points, name this US state home to Margaret Chase Smith, which achieved statehood to balance out the slave state of Missouri under the Missouri Compromise.
ANSWER: MAINE

18. MK-801, or dizocilpine, is often administered in experiments looking to inhibit this process, which along with its less-studied counterpart is accounted for in the BCM theory. Protein kinase C-zeta is important to the upkeep of this process, which is enhanced in mutant mice exhibiting fear responses. The identity of a messenger supporting the retrograde signaling hypothesis of this process remains controversial. Cooperativity, associativity, and input specificity are some of the properties of this process, which requires CREB for its “late-phase” variant, whereas the “early-phase” relies more on the phosphorylation of AMPA receptors. *Aplysia* was used to investigate the synaptic tagging hypothesis of this process, which was replaced by the local protein synthesis idea. The Schaffer collateral and the mossy fiber pathways differ in the requirement of NMDA

receptors for this process, which was first studied in the rabbit hippocampus. For 10 points, name this form of neuroplasticity, an increased synaptic transmission between two synchronously stimulated neurons that is thought to underpin the processes of learning and memory.

ANSWER: LONG TERM POTENTIATION [or LTP; prompt on a partial answer; prompt on “activation of NMDA receptors” or similar answers before “less-studied counterpart” is read; prompt on “plasticity” or “neuroplasticity” before it’s read]

19. One character in this novel repeatedly sings the operetta line “I’ve traveled the whole world over, / They know me everywhere.” In a recurring joke, many characters attach the tag “rama” to the end of words as a reference to the contemporary invention of the diorama. Late at night, the protagonist sees one character through a keyhole mysteriously using rope to twist a bowl embossed with kissing turtledoves and a silver saucer into raw ingots. One woman drugs a man’s coffee and discovers a tattoo on his shoulder identifying him as the leader of the Ten Thousand Society of thieves, the criminal Trompe-La-Mort, and that character organized a duel to kill Victorine’s brother so she could inherit her family’s fortune. One character sells the Restaud family diamonds to a pawnbroker to pay off the debts of her lover Maxime des Trailles. The title character of this novel has an apoplectic stroke at the dinner table of the Maison Vauquer after Anastasie and Delphine lose the dowries he funded with his fortune as a vermicelli merchant, and his funeral is only attended by Bianchon and Eugene de Rastignac. For 10 points, name this 1835 Balzac novel whose title character squanders his wealth on his thankless daughters.

ANSWER: La PÈRE GORIOT [or FATHER GORIOT]

20. One work by this artist is a continuous, axisymmetric bust of Benito Mussolini. Late in life, this artist sculpted a statue depicting its subject wearing broken manacles on his arms, which rest across his chest with the right arm holding a sword. This artist of the aforementioned *Spartacus* showed two male figures, their heads unseen, striking a ballet-like pose in “Ken and Tyler,” and he depicted two intertwined stems, one terminating in an unblossomed bud, and the other in the title flower, in his “Poppy.” This artist divided 39 works into three categories in his X, Y, and Z Portfolios, and depicted a black man with his back to the viewer and his ankles grasped in his outstretched hands in “Derrick Cross.” He pictured a nude woman sitting on a wooden floor with her knees to her chest, holding on to a radiator pipe, in his portrait of his friend Patti Smith. This artist’s self-portrait with a whip inserted in his anus was part of his exhibition that was infamously canceled by the Corcoran Art Gallery in DC. For 10 points, name this photographer of *The Perfect Moment* known for his depictions of gay sex and BDSM culture.

ANSWER: Robert MAPPLETHORPE

TIEBREAKER

21. The *hainteny* literature was translated into this language by an author who wrote the bilingual collection *Dream Images* and poisoned himself with cyanide when his plans to study abroad fell through. Another writer in this language explained a gap in his literary career by quipping that his “pen was broken,” and repeated “those who are dead are never gone,” and “listen to things / more often than beings,” in his oft-anthologized poem “Breaths.” The speaker of another poem written in this language promises a woman, “I will pronounce your name... I will declaim you.” One author who used this language wrote “at first I was bewildered by your beauty, those huge, long-legged, golden girls” in his poem addressed to New York, and described “oil that no breath ruffles, calm oil on the athlete’s flanks” in a poem likening his country to a “naked woman... clothed with your color which is life.” The collection *Nocturnes* and the poem “Black Woman” were written in this language, which was also used for the introductory essay “Black Orpheus.” For 10 points, name this language preferred by Leopold Senghor and other members of Negritude.

ANSWER: FRENCH [or FRANCAIS]

BONUSES

1. A Woody Guthrie song asks “Tell me, what were their names? Did you have a friend” on *this ship*. For 10 points each:

[10] Name this Iceland-based destroyer, which became the first American vessel to be sunk by gunfire in World War II, when it was torpedoed by a German U-552 submarine on October 31, 1941.

ANSWER: USS REUBEN JAMES

[10] The real-life Reuben James reportedly jumped in front of a sword about to strike this American commodore, who had just set fire to the frigate *Philadelphia* during the Barbary Wars. This man famously toasted about “our country, right or wrong.”

ANSWER: Stephen DECATUR

[10] Reuben James also served as a mate on this frigate, which became the first ever American ship to engage an enemy ship when it took on the French ships *L’Insurgante* and *La Vengeance* in 1799 during the Quasi-War.

ANSWER: USS CONSTELLATION

2. The daughter of Julia Ward Howe, Laura Richards, made significant contributions to this genre with her poem “Eletelophony.” For 10 points each:

[10] Name this genre of literature favored by Edward Gorey and Shukumar Ray (RYE), characterized by its frequent defiance of logical and language conventions.

ANSWER: literary NONSENSE [or NONSENSE verse; prompt on CHILDREN’s literature]

[10] This author created two of the most famous works of nonsense poetry, “The Hunting of the Snark” and “Jabberwocky.”

ANSWER: Lewis CARROLL [or Charles Lutwidge DODGSON]

[10] Another writer of nonsense, Edward Lear, penned a poem in which a bunch of characters “went to sea in a Sieve” toward the lands of these creatures, whose “heads are green, and their hands are blue.”

ANSWER: “The JUMBLIES”

3. The notes of Inquisition leader Jacques Fournier, aka Pope Benedict XII, were used to study life in this village. For 10 points each:

[10] Name this Occitan village described as “The Promised Land of Error” in the most celebrated work of microhistory by Emmanuel Le Roy Ladurie.

ANSWER: MONTAILLOU

[10] This dualistic Christian heresy was thriving in Montaillo in the setting of Ladurie’s history. It merged with the Albigenian heresy, against which Innocent III called a crusade.

ANSWER: CATHARS [or Cathari or Catharism]

[10] Ladurie also wrote a work about the peasants of this former French province, which was the center of the Cathari movement and became the target of the Albigenian Crusade after the death of papal legate Pierre de Castelnau.

ANSWER: LANGUEDOC

4. This composer’s sonata for eight instruments is usually credited as the first sonata written by a French composer. For 10 points each:

[10] Identify this house composer for the Mademoiselle de Guise, who wrote the opera *David and Jonathan* for a Jesuit college and served as the last major musical collaborator to Moliere.

ANSWER: Marc-Antoine CHARPENTIER

[10] Moliere turned to Charpentier after his unhappy split with this other composer, who used librettos by Philippe Quinault for operas like *Armide* and *Atys*, and died after stabbing himself in the foot with his conducting staff.

ANSWER: Jean-Baptiste LULLY

[10] Charpentier’s French-language cantatas included several *airs a boire*, which are these kinds of songs. *Carmina Burana* includes one of the earliest songs of this kind, “In taberna.”

ANSWER: DRINKING songs

5. Most of what we know about this woman comes from the book *A General History of the Robberies and Murders of the Most Notorious Pyrates*, by Captain Charles Johnson, who may have been Daniel Defoe. For 10 points each:

[10] Name this bad-ass Irish lady who, along with her cohort Mary Read, was one of the only female pirates ever convicted in

English courts.

ANSWER: Anne BONNY

[10] Bonny was the lover of this other pirate, who created the traditional Jolly Roger flag with skull and crossbones. This man, who gained his nickname from his typical clothing, was captured and hung in Port Royal, Jamaica by Jonathan Barnet.

ANSWER: CALICO JACK [or John RACKHAM]

[10] A more famous fellow in the golden age of piracy was this captain of the Queen Anne's Revenge who was killed fighting Robert Maynard's crew. His real name was Edward Teach.

ANSWER: BLACKBEARD

6. He wrote about Mary Roberts deciding to give a lecture on a fictional tribe of violent Indians after learning she was only asked to interview for a university job to meet a minimum requirement for female candidates. For 10 points each:

[10] Name this author of the story "In the Garden of the North American Martyrs" who also wrote the story "Bullet in the Brain" and the memoir *This Boy's Life*.

ANSWER: Tobias WOLFF

[10] Wolff was a member of a movement called "dirty realism" that was part of the minimalist renaissance of the short story in the 1980s led by this author whose collection *What We Talk About When We Talk About Love* was famously edited by Gordon Lish. He also wrote "Cathedral".

ANSWER: Raymond CARVER

[10] Gordon Lish published this story that Amy Hempel wrote as a grad student for his workshop. It describes visiting a dying friend in the hospital and is one of the most anthologized stories of the last thirty years.

ANSWER: "IN THE CEMETERY WHERE AL JOLSON IS BURIED"

7. This field uses an "activity-based" technology involving probes consisting of a "warhead" and a tag. For 10 points each:

[10] Name this field of study heralded by Mark Wilkins, which by analogy to a related term refers to the examination of all the substances that can be produced by translation in a given organism.

ANSWER: PROTEOMICS [or PROTEOME and other word forms]

[10] A major topic of interest in proteomics is post-translational modification, such as that carried out by this regulatory protein that's like the SUMOs, named for the fact that it is present in almost all eukaryotic tissues.

ANSWER: UBIQUITIN

[10] The most innovative proteomics folks want to move past gel-based analytical techniques, instead favoring methods like this one, in which two proteomes are labeled with a light or heavy probe, then both are combined, digested, and subjected to avidin chromatography and LC-MS.

ANSWER: ISOTOPE-CODED AFFINITY-TAGS [or ICAT; prompt on any part of this answer because it's hard.]

8. As defined in a 1990 paper by Stevan Harnad, this philosophical problem is the question of how "semantic interpretation of a formal... system [can] be made intrinsic to the system, rather than just parasitic on the meaning in our heads?" For 10 points each:

[10] Identify this philosophical problem of how token sets acquire semantics.

ANSWER: SYMBOL GROUNDING problem

[10] In his paper, Harnad proposes a complementary role for this type of alternative to symbolic AI; models of this general sort include Rumelhart's PDP, Rosenblatt's perceptron, and neural networks.

ANSWER: CONNECTIONIST models [accept word forms]

[10] Harnad's introduces the symbol grounding problem by considering the Chinese Room thought experiment first proposed in "Minds, Brains, and Programs," by this Berkeley philosopher and author of *Speech Acts*.

ANSWER: John SEARLE

9. The hypothetical element cosmium has a near zero value for this quantity. For 10 points each:

[10] Name this amount of time that it takes for a substance to decay to 50% of its starting amount.

ANSWER: HALF-LIFE

[10] In some radioactive systems, such as 99-molybdenum and 99-technetium, one nuclide has a much lower half life than another, so it is periodically removed, or eluted, in a process that is often described with this familiar metaphor.

ANSWER: MILKING the cow [or COW and milk systems; be really generous with answers here and accept anything with the

words MILK or COW in it]

[10] This law relates the increasing energy of emitted alpha particles to the exponential decrease in the half-lives of those particles.

ANSWER: GEIGER-NUTTALL law

10. He was accused of treason by the demagogue Agnonides for failing to stop general Nicanor from seizing the Piraeus, and forced to drink hemlock after the Athenian people convicted him at the behest of Polyperchon. For 10 points each:

[10] Name this peace-loving Athenian statesman who virtually ruled Athens from 322 to 318 BC, and was elected strategos a record-breaking 45 times.

ANSWER: PHOCION [or Phokion the Good]

[10] Phocion was paired with Cato the Younger by this Greek historian in his *Parallel Lives*.

ANSWER: PLUTARCH [Lucius Mestrius PLUTARCHUS]

[10] Phocion met his fate because this Macedonian general chose the elderly Polyperchon to succeed him over his own son Cassander. This man worked alongside Craterus to win the Lamian War, after he was left in charge of Greece by the regent Perdiccas.

ANSWER: ANTIPATER

11. Another version of this painting's subject that shows the title figure with "the smoking flame" is housed in the Los Angeles County Museum of Art. For 10 points each:

[10] Name this painting owned by the Met that shows a woman sitting in a dark room with a skull on her lap staring into a gold-framed mirror that reflects the light of a single candle.

ANSWER: The PENITENT MAGDALENE [or LA MADELEINE PENITENTE; accept MAGDALENE WITH TWO FLAMES or LA MADELEINE AUX DEUX FLAMMES]

[10] *The Penitent Magdalene* was painted by this French Baroque artist known for his candle-light scenes. His painting *The Fortune Teller* was at the center of a huge forgery controversy when the Met bought it after it was serendipitously rediscovered after World War Two.

ANSWER: Georges de LA TOUR

[10] La Tour was heavily influenced by this Italian Baroque artist who also painted a *Penitent Magdalene* and inspired La Tour with his gambling scenes, such as *The Cardsharps*.

ANSWER: CARAVAGGIO [or Michelangelo MERISI]

12. A worker in this location, Cedalion, was given over to the blinded Orion as a guide. For 10 points each:

[10] Name this portion of Mount Olympus where tripods and other automatons could be seen, hard at work on pieces of weaponry and armor.

ANSWER: the FORGE of Hephaestus [accept anything suggesting HEPHAESTUS'S WORKPLACE; accept VULCAN'S FORGE]

[10] Acmon, Damnameneus, and Celmis were three of these beings who were born on Mount Ida when Rhea grabbed the earth to endure the pain of giving birth. They were excellent smiths and were listed among Hephaestus's assistants.

ANSWER: Idaean DACTYLS

[10] Before relocating his forge to Mount Olympus, Hephaestus worked on this island, where he landed after being tossed out by Hera.

ANSWER: LEMNOS

13. The square of the frequency response function for this type of circuit is given by one over one plus the ratio of the frequency to the cutoff frequency raised to the power $2n$, where n is an integer parameter. For 10 points each:

[10] Identify this type of filter circuit which has a maximally flat response in the passband.

ANSWER: BUTTERWORTH filter

[10] In contrast to the Butterworth filter, this filter named for a Russian mathematician admits passband ripples but have a much steeper roll-off.

ANSWER: CHEBYSHEV filters

[10] The parameter n in the design of either Butterworth or Chebyshev filters corresponds to the number of elements in the circuit with a non-zero value for this property. This frequency-dependent property is the imaginary component of the impedance and makes up the impedance together with the resistance.

ANSWER: REACTANCE

14. Its colorful features include the Tower of Barbarism, St. Amadeus's Cave, and the Egyptian Temple, which are overseen by a trio of statues modeled on the Easter Island heads called the Three Giants. For 10 points each:

[10] Name this massive building in Hauterives mixing "all styles from all countries and all eras" that was constructed over thirty-three years by a French postman from spare stones he found lying on the ground.

ANSWER: PALAIS IDEAL [or IDEAL PALACE]

[10] Ferdinand Cheval is often cited as an example of this type of art whose English name was coined by Roger Cardinal. It's sometime called naive art, and one famous practitioner is Henry Darger.

ANSWER: OUTSIDER ART

[10] Henry Darger created his massive, illustrated fantasy manuscript *The Story of the Vivian Girls* while living in this city, which is home to Millennium Park and the Lake Shore Drive Apartments.

ANSWER: CHICAGO

15. The speaker describes a place by repeating the refrain three times, "there's only order, beauty: abundant, calm, voluptuous." For 10 points each:

[10] Name this poem that begins with the speaker imploring "my child, my sister" to imagine "how sweet" to live with him in leisure "in that land that resembles you"

ANSWER: "INVITATION TO THE VOYAGE" [or "L'INVITATION AU VOYAGE"]

[10] Charles Baudelaire included "Invitation to the Voyage" in the "Spleen and Ideal" section of this seminal collection of Symbolist poetry.

ANSWER: FLOWERS OF EVIL [or FLEURS DU MAL]

[10] Richard Wilbur's awesome translation of this poem about an animal trapped in a net by mariners ends with a stanza that declares "The Poet is like this monarch of the clouds . . . / Exiled on Earth amidst its hooting crowds, / He cannot walk borne down by his giant wings."

ANSWER: "The ALBATROSS" [or "L'ALBATROS"]

16. This party's military wing trained at the Whampoa Military Academy. For 10 points each:

[10] Name this nationalist party of China led by Chiang Kai-Shek, which participated in the Northern Expedition to unify China.

ANSWER: KUOMINTANG [or KMT, or GUOMINDANG; or GMD, prompt on "Nationalist" or "National People's Party"]

[10] This fascist society, referred to by Chiang Kai-Shek as his "China Revival Society", was composed mostly of young officers from the Whampoa Academy clique, and it was named for the clothing worn by those youths when they swore allegiance to the society.

ANSWER: BLUE SHIRTS [or BLUE SHIRTS Society]

[10] Chiang Kai-Shek was kidnapped during this incident when he was arrested in 1936 by the "Young Marshal," Zhang Xueliang, who was trying to rally support to knock the Japanese out of Manchukuo.

ANSWER: XI'AN Incident [or XIAN Shibian; or SIAN Incident]

17. The fifth book of this text contains the writings of Adarfarnbag, who may have authored the first three books, most of which are lost. The sixth book contains wisdom of the sages. For 10 points each:

[10] Name this ninth century encyclopedia, which is composed of *ninenasks* or volumes, and is often held to the greatest source on the Zoroastrian religion apart from the Avesta.

ANSWER: DENKARD [or DENKART, prompt translations such as "Acts of Religion"]

[10] The Denkard describes the virgin birth of the Saoshyant, a figure who will bring about this wonderful apocalypse. Zoroastrians believe that this final battle will destroy all vestiges of evil in the world, renew creation, and end the historical timeline.

ANSWER: FRASHOKERETI [Frasho kereti]

[10] Frashokereti will, of course, cause this supreme deity of Zoroastrianism to triumph over Angra Mainyu and Ahriman, who will succumb to the river of molten metal leading to the netherworld.

ANSWER: AHURA MAZDA [or ORMUZD, or OHRMAZD, HOURLMAZD, HORMUZ, HORMAZD]

18. This author moved to Japan to escape her domineering first husband Paul, an experience that informed her novel *The Infernal Desire Machines of Dr. Hoffman*, and her collection *Fireworks*. For 10 points each:

[10] Name this modern English writer who reinterpreted numerous fairy tales in her collection *The Bloody Chamber*.

ANSWER: Angela CARTER

[10] Carter wrote this feminist bildungsroman in which Melanie is sent to live with her crazy uncle Philip. She falls in love with her cousin Finn and is forced to have sex with a swan in an adaptation of the Leda and the Swan story.

ANSWER: The MAGIC TOYSHOP

[10] Carter's story "The Flesh and the Mirror" is about a big-game hunter who takes a female slave he christens "Friday," an allusion to this Daniel Defoe novel about a castaway whose friend Friday helps him kill cannibals.

ANSWER: ROBINSON CRUSOE

19. This branch of psychology emphasizes the importance of flow to achieve well-being. For 10 points each:

[10] Name this recently-developed branch of psychology which focuses on how to achieve happiness and meaning during life. A center for this kind of psychology is set up at the University of Pennsylvania, and is directed by the author of the book *Authentic Happiness*.

ANSWER: POSITIVE psychology

[10] The aforementioned director of the Positive Psychology Center is this guy, who earlier discovered that dogs unable to prevent receiving electric shocks eventually stopped trying to avoid them, a behavior he called "learned helplessness."

ANSWER: Martin SELIGMAN

[10] Positive psychology research often discusses the benefits of this cognitive state, a feeling of heightened awareness of a person's immediate experiences and surroundings. It is often used in combination with cognitive-behavioral therapy to treat anxiety and depression.

ANSWER: MINDFULNESS

20. This quantum mechanical system is solved by requiring the total wave function to be antisymmetric in accordance with the Pauli principle and treating the electron-electron Coulombic interaction as a perturbation. For 10 points each:

[10] Identify this quantum mechanical system whose first excited state is split into a singlet and a triplet state by a Pauli exchange term.

ANSWER: HELIUM atom

[10] Calculating the ground state energy of the helium atom directly is laborious; instead, this approximation, according to which the ground state is strictly bounded from above by the expectation value of the Hamiltonian in the ground state can be used to get a value very close to experiment.

ANSWER: Rayleigh-RITZ variational principle [accept just VARIATIONAL principle]

[10] The fact that the singlet state of helium in a given multiplet is higher than the triplet state is an example of these rules, according to which the state of highest spin has the lowest energy. These rules dictate how the electrons fill the available subshells in a multi-electron atom.

ANSWER: HUND's rules [prompt on "selection rules"]

EXTRA BONUS

21. This queen made good on her treaty with the Roman emperor Claudius by using her forces to stop the revolt of Caratacus in 51 AD. For 10 points each:

[10] Name this queen of the Brigantes tribe in Britain who co-ruled with her husband Venutius, though he attempted to revolt against her several times.

ANSWER: CARTIMANDUA [or CARTISMANDUA]

[10] This more rebellious and more popular queen of the Iceni tribe in Britain used the absence of governor Suetonius Paulinus to raise an uprising in East Anglia in 60 AD.

ANSWER: BOUDICCA [or BOADICEA]

[10] This husband of Boudicca was a king of the Iceni who left a will when he died in 60 AD. That will was ignored by Roman soldiers who flogged and raped Boudicca and her daughters.

ANSWER: PRASUTAGUS