A C F

ACADEMIC
COMPETITION
FEDERATION

2014 ACF Nationals
Packet by Michigan

Tossups

1. By the last stanza of this poem, the speaker is "ablaze with rage," but calms down upon realizing that another location was also "nook-shotten, rook o'erblown, deranged / By foaming channels and the vain expense / Of bitter faction." The speaker of this poem sees "moth-like girls... mixed with candle dust" and "axle and coach wheel silted under the muck / Of cattle droppings," then provides a tongue-in-cheek invocation of the *Songs of Innocence* by bidding farewell to "green fields" and "happy groves." This poem's speaker thinks of "men like Hawkins, Walter Raleigh, Drake, Ancestral murderers and poets" who perpetrate "ulcerous crimes." Only a "disjecta membra" remains of this poem's title location, where "a smell of dead limes quickens in the nose / The leprosy of empire." For 10 points, name this anti-colonial Derek Walcott poem whose speaker tours a decrepit former plantation.
ANSWER: "Ruins of a Great House"

2. One president of this country put on trial the president of the Supreme Court, Ernest Boka, for conspiring against him. He also claimed that Jean-Baptiste Mockey tried to assassinate him using voodoo, which he called the "black cat conspiracy." This country was originally claimed for France by Louis Gustave Binger, the grandfather of Roland Barthes. Its first president granted shelter to the conspirators who led the coup against Kwame Nkrumah, and granted refuge to Jean-Bédel Bokassa, and also pursued cooperation with France in a policy he called Françafrique. That president, Félix Houphouët-Boigny, used his hometown in this country as the site of the Basilica of Our Lady of Peace, the world's largest church. More recently, France helped Alassane Ouattara oust this country's president Laurent Gbagbo. For 10 points, name this country whose capital was moved from Abidjan to Yamoussoukro.
ANSWER: Ivory Coast [or Côte d'Ivoire]

3. Zasloff discovered antimicrobial peptides called magainins in this organism, which enable them to close wounds without infection or inflammation. Experiments in which this organism's eye was excised, rotated 180 degrees, and then placed back in, resulting in it chasing food sources in exactly the wrong direction, led Roger Sperry to propose the chemoaffinity hypothesis. P.D. Nieuwkoop used an animal cap assay to determine that cells in the vegetal hemisphere of this organism induced the formation of the mesoderm, leading to the discovery shortly thereafter of the TGF-beta family. This organism's females ovulated within hours of being injected with hCG-rich urine, leading Lancelot Hogben to develop his pregnancy test. This organism's utility is limited by its long generation time and pseudotetraploidy, which is why the *tropicalis* species is sometimes used instead. This animal is attractive to researchers because of its large embryos. For 10 points, name this popular developmental model organism, a frog.
ANSWER: Xenopus laevis [or X. laevis; or African clawed frog]

4. Brian Tierney has written a study on the historical origins of this doctrine; he argues that it can be traced back to the scholarly writings of Peter Olivi. A book rejecting this idea was published by Hans Kung in 1971, and led him to be stripped of his license to teach Catholic theology. Protestant opponents of this principle often cite the Three Chapters Controversy as evidence. Defended early on by Robert Bellarmine, this doctrine was formally defined in a constitution called *Pastor Aeternus*, which was denounced by opponents as part of the heresy of Ultramontanism when it was issued by the First Vatican Council. This idea was invoked by Pius XII when he defined the Assumption of Mary as an article of faith, and this doctrine allows for the possibility of speaking *ex cathedra*. For 10 points, name this Catholic doctrine, which holds that the Pope is unable to err in defining a dogma.
ANSWER: papal infallibility [prompt on infallibility of the Church]

5. This leader set up a system of 27 national corporations, each managed by committees of half employers and half workers. He outlawed the National Confederation of Labor, or CNT, and its more radical members formed a secret society called the FAI to oppose his rule. He ruled under the slogan "Country, Religion, Monarchy," and funded public works by taxes on the rich and public loans, causing inflation which contributed to his overthrow. The rule of his successor is called the *dictablanda* in contrast to his *dictadura*; that successor was Dámaso Berenguer. This man ended the *turno pacifico* system, whereby the Conservative and Liberal parties took turns holding power, when his coup installed the Patriotic Union party and suspended the constitution. That coup of his was supported by Alfonso XIII, and this man held power from 1923 until the rise of the Second Spanish Republic in 1930. For 10 points, name this Spanish prime minister whose son José Antonio founded the Falange.
ANSWER: Don Miguel Primo de Rivera y Orbaneja, Marquis of Estella [correct answer must give all underlined parts - prompt on partial answers]

6. A book by sociologist Brian Sutton-Smith analyzes this phenomenon through seven "rhetorics," including the "rhetoric of animal progress," and the "rhetoric of identity," in a book titled after the "Ambiguity of," this phenomenon. A six-stage model of this phenomenon was developed by Mildred Parten, and it was divided into the categories of *agon*, *alea*, mimicry, and *ilinx* in a book by Roger Caillois. According to Friedrich Schiller's *On the Aesthetic Education of Man*, man is "only wholly a man" when engaged in this activity. According to a lecture by Derrida, the purpose of the center of a structure was to limit the possibility of this activity; that lecture is titled after structure, sign, and this action, "in the Discourse of the Human Sciences." Another work on this activity attempts a classification of words used to denote this action in languages such as Greek, Sanskrit, and Japanese, and distinguishes the "cheat" from the "spoil-sport" because while the former still acknowledges the "magic circle," the latter destroys the "illusion" associated with this activity. For 10 points, identify this activity which is the subject of Johan Huizinga's *Homo Ludens* and which is engaged in by adults and children for pleasure.
ANSWER: PLAY [accept GAMES]

7. In 2003, the provinces on this island were reorganized into the CALABARZON region, while nearby islands were reorganized into the MIMAROPA region. This island is the site of the ruins of Cagsawa church, which was destroyed by eruption of a volcano notable for being a "perfect cone." The southeastern provinces on this island, including Albay and Sorsogon, comprise its Bicol region, which is home to the Mayon Volcano and the city of Legazpi. This island, which sits to the south of the Babuyan Islands, is also home to the basin of the Cagayan River and Clark Air Base, which was heavily damaged by another of its volcanoes. A military campaign centering on this island saw the capture of Corregidor and culminated in one side participating in the Bataan Death March. For 10 points, name this island, the site of Mt. Pinatubo and the largest island in the Philippines.
ANSWER: Luzon

8. A non-standard explanation of the shape of these constructs was proposed in 2005 by Cooperstock and Tieu, who derive the characteristics of these constructs from general relativistic calculations alone. A model by Persic, Salucci, and Stel attempts to fit all known examples of these constructs to a "universal" one using two parameters which are both functions of luminosity. The empirical Tully-Fisher relation relates luminosity to the maximum value obtained from these constructs. These constructs are typically created by measuring the Doppler shift of the 21 centimeter transition line in neutral hydrogen at different locations in the object of interest. The flatness of these plots in spiral galaxies suggest that the galactic halos contain a great deal of non-visible mass, thereby providing evidence for the existence of dark matter. For 10 points, identify these plots which show the angular velocity of gravitationally bound galactic matter as a function of its distance from the galactic center.
ANSWER: galactic ROTATION CURVES

9. One of this author's poems contains the metaphor of a "dismal shade" extending over the head of mankind, which is nibbled at by a "caterpillar and fly." This poet described a location where the "sun does never shine," the "fields are bleak and bare," and the "ways are filled with thorns," stating simply: "It is winter there." He weirdly phrased the line "like the harmonious thunderings of Heaven among" to rhyme with "song" in another poem, which describes characters "walking two and two, in red and blue and green." This poet related that "The Gods of the earth and sea" seek a tree in vain, because "There Grows one in the Human Brain." He beckons the reader to "cherish pity, lest you drive an angel from your door," at the end of a poem describing a procession of children walking into St. Paul's Cathedral. This author wrote about "a little black thing among

the snow" who is sold by his father before he could cry "weep! weep! weep! weep!" For 10 points, name this poet of "The Human Abstract," whose "Holy Thursday" and "The Chimney Sweeper" each appear in two contrasting versions in his *Songs of Innocence and Experience*.

ANSWER: William Blake

10. A minor ninth kicks off one piece for this many instruments, whose moderato central section instructs the players to use the point of a bow. This many instruments play a piece whose first movement climax contains the notes A, G, A, B natural, E, spelling the first name of Agathe von Siebold, with whom the composer was infatuated. Gyorgy Ligeti arranged this many movements of his piano cycle *Musica ricercata* as bagatelles for wind quintet. Brahms's Opus 18 and Opus 36 were scored for this many instruments, as was Tchaikovsky's *Souvenir de Florence*. There are Italian, French, and German types of the augmented chord of this number, which is the largest interval present in a given chord in the first inversion. An ensemble of this many instruments plays a piece with an extreme transition from E-flat minor to D major, which evokes a woman walking through a dark forest and announcing to her lover that she bears another man's baby, just like the Richard Dehmel poem it's based on. For 10 points, give this number of strings that play Arnold Schoenberg's *Transfigured Night*, and the number of composers in a prominent early 20th century French circle.

ANSWER: sixth

11. The combination of Monte Carlo algorithms with this formalism for use on lattice problems is known as the "worldline" method. The Duistermaat-Heckman theorem gives the conditions under which the calculations central to this formalism can be localized and performed exactly. Stephen Hawking used this formalism to compute the partition function of a black hole, and in general, the use of a Wick rotation transforms the expressions central to this formalism into the partition function of statistical mechanics. This formalism is based on extending the Weiner process to apply to the Schrodinger equation via a formula developed by this formalism's originator and Mark Kac. This formalism expresses the transition amplitude between two states, or equivalently, the propagator, by considering the sum of all possible trajectories weighted by a phase factor given by the action. For 10 points, identify this quantum mechanical formalism invented by Richard Feynman.

ANSWER: path integral formalism

12. A chapter about the meaning of this term distinguishes between its predicative and attributive uses and notes that one of its attributive uses is doubly relative, and that philosophy should be concerned with the predicative use. This is the second title concept of a book which argues that the proper course of action in a given situation is determined by a set of *prima facie* duties. That book is by W. D. Ross, and discusses another philosopher's distinction between the "ultimate" and "intrinsic" forms of this property. That philosopher argued that "Is it true that X [has this property]?" is an open question. That philosopher also argued that, just as we cannot explain the concept of "yellow" to a blind person, this property cannot be defined in terms of other properties. For 10 points, name this ethical property whose indefinability is argued for in G. E. Moore's *Principia Ethica*.

ANSWER: the good [or goodness]

13. One character in this novel is a mythomaniac who is described saying "however he was dressed . . . looked disguised," and he reappears as the author of the film script *The Reign of Evil* in the author's later book *Anti-Memoirs*. One character is instructed to bring a pet bird in a cage as a gift for his mistress, but when he sees an Englishman in the hotel also carrying a caged bird he buys forty birds and a kangaroo and unleashes them in her room. In a scene when a number of captives are about to be burned alive in a train's boiler room, one character gives his cyanide pill to two other prisoners. The protagonist of this novel goes to the *Black Cat* nightclub to arrange for a man to deliver a forged order to a ship and listens to a coded message in the form of a language lesson at Hemmelrich's shop. Baron de Clappique escapes on a ship to France disguised as a sailor after failing to secure Kyo Gisors's or Katov's release from prison. In this novel, the terrorist Ch-en blows himself up while hiding under a car in a failed attempt to assassinate Chiang Kai-Shek. For 10 points, name this novel about Communist rebels in Shanghai by Andre Malraux.

ANSWER: Man's Fate [or La Condition Humaine]

14. In less notable undertakings, this man started a failed fur trading business with John Askin, and sent an expedition under Jonathan Carver and James Tute to find the Northwest Passage. A legend claims that he slid down a rock wall 400 feet in the

air and landed on the frozen Lake George to escape from a clash called the Battle on Snowshoes - so named because this man's troops wore snowshoes. An account by a Connecticut man credits this man with exposing the traitor Nathan Hale. He was put on trial in Montreal by Thomas Gage for conspiring with the French, but was freed through efforts of Jeffrey Amherst, who'd previously hired this man's army. Once named as royal governor of Fort Michili-mackinac, this man remains famous for writing a handbook containing "28 Rules" of irregular warfare based on his observation of Native American battle tactics during Pontiac's Rebellion. For 10 points, name this American who fought during the French and Indian War using a band of troops known as his Rangers.
ANSWER: Major Robert Rogers

15. In one poem, this deity expresses a dissatisfaction with the darkness of Ulfdalir. This deity's story, along with that of Thor, is told in the *Haustlong*. A funeral pyre was set up to burn the enemy of this most famous sibling of Auda, prompting that enemy's daughter Skadi to race to Asgard to seek vengeance. This deity steps in to restrain another god from starting a fight in Aegir's hall in the *Lokasenna*, in which Loki calls her the loosest of all the gods, for sleeping with her brother's killer. This goddess was lured to a wood and then abducted by an eagle, though she was turned into a nut and taken back by a falcon, who was really Loki. She carries a basket full of objects that instantly rot if people take them. This woman was stolen back from Thiazi because the gods began to grow old and grey in her absence. For 10 points, name this Norse goddess, the wife of Bragi, who kept the golden apples of eternal youth.
ANSWER: Idunn

16. A bunch of paper towels are thrown on the camera, which is angled upwards, in one scene from this film, which ends with a character using one of those towels to remove spit from his lips. One scene in this film consists of a series of shots of four crucified Jesus figurines from different angles, followed by stock footage of explosions and avalanches. In this film, the protagonist hobbles past a small illuminated sign reading "home" in a rainy forest, as the narrator asks "where was I to go, who had no home and no money?" The finale of the *William Tell Overture* plays during a sped-up threesome during this film, in which the main title music plays while the protagonist is being beaten with batons, with a jarring, echoey note accompanying each baton strike, hearkening back to an early scene in which a bookcases are overturned and a woman's dress is cut to the rhythm of the protagonist belting out "Singin' in the Rain." This film's protagonist admires the music of "Ludwig van," and is incensed when Beethoven's 9th is played while he is subjected to the Ludovico technique. For 10 points, name this Stanley Kubrick film adaptation of a novel by Anthony Burgess.
ANSWER: A Clockwork Orange

17. In this novel, a young boy is nearly killed crossing an unstable bridge to fetch a bottle of whiskey for the housekeeper Mrs. Briscoe. This novel's narrator hires the liberal college dropout Shelley Rasmussen to be his scribe after he moves to his family home Zodiac Cottage in Grass Valley, and argues about the value of history with his sociologist son, Rodman. A female character is jealous when her best friend Augusta Drake marries Thomas Hudson, the editor of *Scribner's*, while she leads an itinerant life in places such as New Almaden and Leadville, where her husband Oliver works on various fruitless engineering projects. This novel's author controversially quoted the letters of Mary Hallock Foote for the letters of Susan Burling Ward, whose life is chronicled by the wheelchair-bound historian Lyman Ward. For 10 points, name this Pulitzer-winning 1971 novel by Wallace Stegner.
ANSWER: Angle of Repose

18. Geoffroy et al. developed a metastable complex of a carbene and one of these compounds with no vacant metal d pi orbitals. Copper bromide and an amine base can couple a halogen-substituted compound of this kind with an unsubstituted one. Propargyl alcohols serve as a protecting group for these functional groups, and are formed by the treatment of one with a carbonyl compound and a base in the Favorskii reaction. Barry Sharpless considered the premiere click reaction to be the Huisgen cycloaddition of an azide to one of these functional groups. Some of them register as strong, narrow bands between 3260 to 3330 inverse centimeters in IR spectroscopy; that type of these compounds is also unusually acidic, with a pKa of 26. Lindlar's catalyst partially hydrogenates these compounds, in which the addition of HX compounds is not stereoselective due to a planar intermediate. The simplest ones follow the formula C_nH_{2n-2}, and include acetylene. For 10 points, name this functional group with a carbon-carbon triple bond.
ANSWER: alkynes [accept acetylenes before mentioned]

19. This artist was commissioned by David Mirvish to paint a massive series of murals stretching over 10,000 square feet, which ended up covering the auditorium ceiling, lounge, lobby, and back wall of the Princess of Wales Theatre. This artist featured vertical notches at the top and bottom of his painting *Newstead Abbey* and created a series of 300 sculptures meant to match Scarlatti's *Essercizi*. This artist used the outlines of drafting tools as abstract representations of feathers in a series of aluminum reliefs, while he borrowed the proportions of Nazi banners for a work named after the first line of the Nazi anthem. This creator of the *Exotic Bird* series included *Die Fahne Hoch!* and *The Marriage of Reason and Squalor* in a group of works featuring bands of a certain dark paint separated by thin lines of unpainted canvas. For 10 points, name this abstract American artist who created the geometry-inspired *Irregular Polygons* series and first came to fame with the *Black Paintings*.
ANSWER: Frank STELLA

20. One ruler with this name put on a banquet for 12 men to see who should marry his daughter - the favored contestant Hippocleides was disqualified when he got drunk, stood on his head, and displayed his testicles to the guests. That ruler by this name led the siege on Kirrha during the First Sacred War, as commander of the Amphictyonic League forces. He also created a tribal system which used the insulting epithets "swine-men", "pig men", and "ass-men" to describe Dorian tribes, because he was a member of the non-Dorian tribe of Orthagoras. In addition to that man, who was a tyrant of Sicyon around 600 BC, this name was held by a man who created thirty districts called trittyes, evenly divided between the city, the coast, and the interior. That man was the son of Megacles who is credited with introducing the idea of ostracism after he overcame the Spartan-backed candidate Isagoras to rise to power in 508 BC. For 10 points, give this name held by the man called the "father of Athenian democracy."
ANSWER: CLEISTHENES [also accept "Cleisthenes of Sicyon" since much of the question is about him]

TIEBREAKER

21. One astrophysical application of this phenomenon is the use of its effect on the OH maser spectrum to map certain properties of the interstellar medium, and this effect is directly employed by the Solar Dynamics Observatory to produce its maps. William Phillips employed a velocity-induced Doppler shift together with this phenomenon to induce a resonance between a beam of atoms at a given velocity and a laser, resulting in the atoms slowing down, thereby creating a cooling technique named for this effect. The standard analysis of this effect considers a perturbation to the hydrogen Hamiltonian proportional to the dot product of vector potential and momentum. Because electrons have spin, the full treatment of this phenomenon results in an effect proportional to the Lande g-factor. At low field intensities, the energy shift due to this effect is equal to the Bohr magneton times the field strength times the magnetic quantum number. For 10 points, identify this effect, in which atomic spectral lines are split by the application of a magnetic field.
ANSWER: ZEEMAN effect

1. This thinker's works include a history titled *The Sixties: Years of Hope, Days of Rage* and an analysis of intellectuals and their connection to patriotism titled *The Intellectuals and the Flag*. For 10 points each:
[10] Identify this public intellectual and president of the Columbia School of Journalism, who with Liel Liebovitz authored a parallel analysis of divine election in both the USA and Israel titled *The Chosen Peoples*.
ANSWER: Todd GITLIN
[10] The third chapter of *The Intellectuals and the Flag* concerns this long-time editor of *Dissent*, a Jewish socialist who wrote a history of Eastern European Jews titled *World of Our Fathers* and a volume of literary criticism, *Politics and the Novel*.
ANSWER: Irving HOWE [or HORENSTEIN]
[10] Gitlin's latest book concerned this protest movement, which flared up in New York City when protesters filled Zuccotti Park in September of 2011.
ANSWER: OCCUPY Wall Street protests or movement

2. Answer the following about Roman attempts to rule the Armenian kingdom, for 10 points each.
[10] The second emperor of Armenia by this name, known as the Great, established a namesake capital to replace Artashat, but it was sacked by Lucius Lucullus in a 69 BC battle. The emperor of this name ruled Armenia from 95 to 55 BC, the later handful of years as an ally of Rome.
ANSWER: TIGRANES the Great [or Tigran]
[10] Rome's Armenian dominance then waned in favor of the Arsacid Dynasty of this Empire, whose general Surena thumped Crassus at the Battle of Carrhae.
ANSWER: PARTHIA [Parthian Empire]
[10] After the fall of the Parthians, Tiridates III was set up by the Romans as king and he was converted to Christianity by St. Gregory, who bore this epithet. He became the patron saint and first head of the Armenian Apostolic Church.
ANSWER: the ILLUMINATOR [or Phoster or Photistes or "Enlightener" or Lusavorich]

3. One character in this play nonchalantly uses a scimitar to slice open his stomach, then reaches inside to hand two breadsticks over to the protagonists. For 10 points each:
[10] Name this six-act play in which the fairy Berylune sends the siblings Tyltyl and Mytyl on a quest to fetch a happiness-bestowing animal for her extremely ill daughter.
ANSWER: The BLUE BIRD [or L'OISEAU BLEU]
[10] Despite visiting such outlandish allegorical locations as the Land of Memory and the Kingdom of the Future in their search for the bird, the siblings eventually find it in this surprising place.
ANSWER: THEIR HOUSE [or the WOODCUTTER'S COTTAGE or synonyms; any answer indicating that it's WHERE THEY LIVE; prompt on "house" or other words for domiciles that don't indicate to whom it belongs; prompt on smug answers of "where they started"]
[10] Maurice Maeterlinck, the author of *The Blue Bird*, produced many plays for this kind of theater to express his idea that humans are controlled by the forces of fate. Japanese bunraku theater is characterized by the use of these objects.
ANSWER: PUPPETs

4. Name some undecidable problems, for 10 points each.
[10] This problem asks whether a Turing machine will come to a stop given a particular program as input.
ANSWER: HALTING problem
[10] This problem asks if, given two lists of strings, there exists a string which can be created by concatenating strings from either of the two lists.
ANSWER: POST CORRESPONDENCE problem
[10] The halting problem for this kind of system is also undecidable. In this type of Post canonical system, a set of rules specifies that certain elements are to be deleted from the beginning of a sequence, and corresponding elements are to be added to the end.
ANSWER: TAG system

5. Name these artists who painted the walls of the Sistine Chapel, for 10 points each.
[10] This artist painted Moses Leaving to Egypt, but is better known for a scene from the life of Christ in which Christ gives an object to a kneeling man in front of the Temple of Solomon.
ANSWER: Pietro Perugino [or Pietro Vannucci]
[10] This artist's Sistine frescoes include *Temptations of Christ* and *The Trials of Moses*, and his later religious work *The Mystical Nativity* shows Savonarola's influence.
ANSWER: Sandro Botticelli [or Alessandro di Mariano di Vanni Filipepi]
[10] This eccentric artist assisted Cosimo Rosselli paint *Descent from Mount Sinai*, and Vasari claimed he lived "more like a beast than a man." He painted strange mythological works including *The Death of Procris* and *Perseus Frees Andromeda* with an odd landscape featuring a band playing fantasy instruments.
ANSWER: Piero di Cosimo [or Piero di Lorenzo]

6. This philosopher compared ethics to aesthetics by treating moral judgments as a kind of aesthetic judgment in books like *The Moralists*. For 10 points each:
[10] Name this philosopher, whose major essays were collected in *Characteristics of Men, Manners, Opinions, Times*.
ANSWER: Anthony Ashley-Cooper, 3rd Earl of Shaftesbury [accept either underlined name]
[10] Shaftesbury was opposed to the egoism and empiricism of this philosopher, whose described life in the state of nature as "solitary, poor, nasty, brutish and short."
ANSWER: Thomas Hobbes of Malmesbury
[10] Shaftesbury's idea of the "moral sense" was adopted by this Scottish Enlightenment figure, who was a great influence on Hume and Adam Smith. He wrote *An Inquiry into the Original of Our Ideas of Beauty and Virtue*.
ANSWER: Francis Hutcheson

7. This essay differentiated between "status" writers who ignore the reader's interests and "contract" writers who care about pleasing the reader. For 10 points each:
[10] Name this 2002 essay published in *The New Yorker* attacking William Gaddis, which includes a long anecdote about the author's inability to finish reading Gaddis's novel *J R*.
ANSWER: "Mr. Difficult"
[10] This contemporary American novelist wrote the essay "Mr. Difficult", but is better known for his novels *The Corrections* and *Freedom*.
ANSWER: Jonathan Franzen
[10] Franzen collected "Mr. Difficult" and his widely criticized essay "Why Bother?", originally published in *Harper's* under the title "Perchance to Dream," in this 2002 book of essays, which is titled for a question addressing "the problem of preserving individuality and complexity in a noisy and distracting mass culture."
ANSWER: How to Be Alone

8. For an n particle system, the normalization factor in this expression is one over the square root of n factorial. For 10 points each:
[10] Name this expression, which represents the wave function of a multi-fermionic system.
ANSWER: Slater determinant
[10] Slater determinants have this important quality, which causes the wave function to change sign whenever two electrons switch coordinates.
ANSWER: antisymmetry [accept word forms]
[10] Slater determinants appear in Hartree-Fock theory, which can be used to calculate these functions describing the behaviors of electrons in their namesake bonding or antibonding states.
ANSWER: molecular orbitals [or MOs; prompt on "orbitals"]

9. Answer the following about Supreme Court cases originating in Ohio, for 10 points each.
[10] *Jacobellis v. Ohio*, the obscenity case which produced Potter Stewart's famous "I know it when I see it" quote, revolved around the showing of this French film at the Heights Art Theatre in Cleveland.
ANSWER: The Lovers [or Les Amants]
[10] This 1961 case found that evidence obtained in violation of the Fourth Amendment is inadmissible in state courts. It

revolved around the warrantless invasion of a woman's home in Cleveland which turned up some obscene material.

ANSWER: Mapp v. Ohio

[10] In this 1968 case, Earl Warren's court held that a police officer does not violate the Fourth Amendment by frisking a suspect without probable cause, if the officer has a reasonable suspicion that the suspect is armed and dangerous or involved in criminal activity.

ANSWER: Terry v. Ohio

10. Name these cellists, for 10 points each.

[10] This Chinese-American cellist founded the Silk Road Ensemble. He uses the Davidov Stradivarius and a cello named Petunia.

ANSWER: Yo-Yo Ma

[10] This Soviet cellist memorably impressed a Proms audience infuriated with the USSR's 1968 invasion of Czechoslovakia, and won the Stalin Prize at age 23. Shostakovich wrote his two cello concerti for him.

ANSWER: Mstislav (Leopoldovich) Rostrapovich

[10] Like Jacqueline du Pre, this British composer also played on an award-winning recording of Elgar's *Cello Concerto*, conducted by Yehudi Menuhin. He was renowned for his interpretation of Britten's *Cello Symphony*.

ANSWER: Julian Lloyd Webber

11. Answer the following about the World Zionist Organization, for 10 points each.

[10] Membership in the organization was granted to anyone who accepted this program, which says that Zionism seeks a home for Jewish people in Palestine. It's named for the city in Switzerland where the First Zionist Congress was called by Theodor Herzl n 1897.

ANSWER: Basel Program

[10] This chemist was president of the World Zionist Organization twice, and became the first President of Israel in 1948, years after his access to Arthur Balfour prompted Balfour to draft a declaration to Lord Rothschild.

ANSWER: Chaim Weizmann

[10] The WZO funded this organization created by Recha Freier and directed by Henrietta Szold, which was designed to rescue and resettle Jewish children under threat from the Nazi regime.

ANSWER: Youth Aliyah [or Aliyat Hano'ar]

12. Music by Guillaume Dufay and Gilles Binchois was performed at this lavish event. For 10 points each:

[10] Name this banquet held in 1454 to drum up support for a proposed crusade against the Turks in the wake of their recent taking of Constantinople. According to Olivier de La Marche, one of the tables at this banquet had a centerpiece shaped like a giant pie, filled with minstrels.

ANSWER: Feast of the Pheasant [or Banquet du Voeu du Faisan]

[10] The Feast of the Pheasant was put on by this Valois duke, the son of John the Fearless. His forces captured Joan of Arc at Compiegne. He also signed the Treaty of Troyes with King Henry V of England.

ANSWER: Philip the Good [or Philippe le Bon; or Philip III]

[10] Philip the Good was a duke of this French region, as was his successor, Charles the Bold. Its dukes warred with the Armagnacs in a civil war starting in 1407.

ANSWER: Burgundy

13. In 2010, this sculptor installed one hundred life-size statues of people in the Austrian Alps. For 10 points each:

[10] Name this contemporary British sculptor of *Horizon Field* who created a 66-feet tall steel sculpture titled *Angel of the North* in a country field outside Gateshead with massive wings spanning 177 feet.

ANSWER: Antony Gormley

[10] Gormley lead the public art project *One & Other* where 2,400 people occupied the famously vacant fourth plinth at this location for an hour each for a hundred days. John Nash redesigned this place, whose best-known feature features four bronze lion designed by Edwin Landseer around its base.

ANSWER: Trafalgar Square

[10] This monument in Trafalgar Square that stands 170 feet high features a sandstone statue by E.H. Baily of the namesake British admiral.

ANSWER: <u>Nelson's Column</u>

14. Answer the following about the psychology of religion, for 10 points each.
[10] This author of *The Varieties of Religious Experience* is often described as the founder of the psychology of religion.
ANSWER: William <u>James</u>
[10] This psychologist, who developed a Religious Orientation Scale with Ross, distinguished between mature and immature religion in *The Individual and His Religion*. This trait theorist also wrote *Pattern and Growth in Personality*.
ANSWER: Gordon <u>Allport</u>
[10] This book by Rudolf Otto equates the title concept with the numinous, which is described as a *mysterium tremendum*.
ANSWER: The <u>Idea of the Holy</u> [or Das <u>Heilige</u>: Uber das Irrationale in der Idee des Göttlichen und sein Verhältnis zum Rationalen; or The <u>Holy</u>: On the Irrational in the Idea of the Divine and Its Relation to the Rational]

15. In the Little-Parks effect, the resistance of a superconducting cylinder undergoes oscillations as a consequence of the oscillation in this quantity. For 10 points each:
[10] Identify this quantity, which can be calculated from the energy gap of BCS theory, and above which, a Type I superconductor ceases to be a superconductor.
ANSWER: superconducting <u>critical temperature</u>
[10] The oscillation in the Little-Parks effect has a period given by this quantity, which is equal to Planck's constant over twice the electron charge. It appears as a constant of proportionality in the expression for the voltage in the Josephson effect, and its inverse is sometimes called the Josephson constant.
ANSWER: <u>magnetic flux quantum</u> [prompt on partial answers]
[10] The relationship between the induced electromotive force in a circuit and the rate of change of the magnetic flux is given by this law.
ANSWER: <u>Faraday</u>'s law of induction [accept the <u>Maxwell-Faraday</u> equation]

16. In 1926, this author ignited an impassioned debate when he issued a treatise suggesting that the scientific method should be used to approach and analyze pre-Islamic poetry. For 10 points each:
[10] Name this "Dean of Arabic Literature," who wrote about his studies abroad in Paris and criticized the al-Azhar seminary in his influential tripartite autobiography told in the third person, titled *The Days*.
ANSWER: Taha <u>Hussein</u>
[10] Taha Hussein suffered from this affliction, as did Jorge Luis Borges, who wrote an essay noting the irony of "imagin[ing] Paradise as a kind of library" and then developing this condition later in life after becoming the director of the National Public Library.
ANSWER: <u>blind</u>ness
[10] This author wrote the introduction to a French translation of *The Days*, and made North Africa the partial setting of a book in which Michel cheats on his wife with young Arab boys.
ANSWER: Andre (Paul Guillaume) <u>Gide</u>

17. Eurytion, the king of Phthia, cleansed his hero of the sin of having taken part, along with Telamon, in the murder of his brother Phocus. For 10 points each:
[10] Name this son of Endeis and Aeacus, who owned a magic sword and the immortal horses Balius and Xanthius.
ANSWER: <u>Peleus</u>
[10] Peleus once rejected this batshit insane Queen of Iolcus, who in revenge sent a false letter to Peleus's wife Antigone saying that he was going to marry another woman, causing Antigone to kill herself. Peleus responded by invading Iolcus, brutally dismembering this woman, and ordering his army to march between the severed limbs.
ANSWER: <u>Astydameia</u>
[10] All of the aforementioned cool moments in Peleus's life happened before he married Thetis, settled down, and raised this rage-filled hero of the Trojan War.
ANSWER: <u>Achilles</u>

18. Name some things discussed in E. P. Thompson's *The Making of the English Working Class*, for 10 points each.

[10] Thompson presents a revisionist history of these textile workers who protested the Industrial Revolution by destroying machinery in England around the turn of the 19th century.
ANSWER: Luddites
[10] The preface mentions the English woman Joanna Southcott, who left behind a wooden box of prophecies. Some crazy people later claimed the box foretold victory in this November 1854 battle during the Crimean War, known as the "Soldier's Battle." Menshikov's loss at this battle to Lord Raglan paved the way for the siege of Sevastopol.
ANSWER: Battle of Inkerman
[10] Thompson also discusses this reformist opponent of the Corn Laws and proponent of Catholic emancipation, who wrote the 1830 book *Rural Rides* and used the pseudonym "Peter Porcupine."
ANSWER: William Cobbett

19. Answer some questions about reactive oxygen species and their effects in the body, for 10 points each.
[10] One example of reactive oxygen species are these compounds, which feature two oxygens linked by one covalent bond. One of them, H_2O_2, is used to disinfect cuts.
ANSWER: peroxides
[10] In this type of damage caused by reactive oxygen species, both parts of the double helix are severed. The body fixes them through mechanisms like homologous recombination and nonhomologous end joining.
ANSWER: double-strand breaks [or DSB; prompt on strand break]
[10] The activity of this enzyme complex in phagosomes can generate reactive oxygen species. Apocynin prevents the assembly of this complex's six subunits, which include Rac1 or Rac2 GTPases and five "phox" units.
ANSWER: NADPH oxidase [or nicotinamide adenine dinucleotide phosphate-oxidase]

20. This play experienced a revival in the 1840s, after Charles Dickens got together with a few of his friends and staged it, choosing the role of Bobadill for himself. For 10 points each:
[10] Name this play, which ends with Justice Clement sentencing Bobadill and Matthew to a penitent fast, and the merchant Kitely being rebuked for his fears that visitors to his home are sleeping with his wife.
ANSWER: Every Man in His Humour
[10] This playwright wrote about the servant Brainworm's nominal attempts to spy on Kno'well's son in *Every Man in His Humour*, and drew on the beast fable and city comedy genres for his play *Volpone*.
ANSWER: Ben Jonson
[10] *Every Man in His Humour* and this playwright's *An Humourous Day's Mirth* are the foremost English examples of the "humours comedy" genre. He collaborated with Jonson and John Marston on the play *Eastward Ho*.
ANSWER: George Chapman

Extra Bonus

21. The beginning of this war was engineered by the secret society Filiki Eteria, led by Alexander Ypsilanti. For 10 points each:
[10] Name this war in which a certain country fought for independence from the Ottoman Empire.
ANSWER: Greek War of Independence
[10] The intervention of the Great Powers in the Greek War of Independence came to a head at this 1827 naval battle, which was won by Edward Codrington.
ANSWER: Battle of Navarino
[10] After Navarino, the French intervention continued with this combined military and scientific expedition to the Peloponnese.
ANSWER: Morea expedition