ACF Regionals 2016: Ben There, Didn't Do That
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TOSSUPS:

1. This man's claims to have civilized a great number of peoples were exposed when Friar Augustin Rodriguez and "El Chamuscado" retraced his steps and found that his only discernible action had been having sex with local women. This man carried out the brutal Tiguex War, but is better remembered for an effort inspired by reports from Marcos de Niza, who had struck out with a Berber named Estevanico. After arriving at Quivira and finding mainly rocks and buffalo, this man executed a native guide known as "the Turk." This explorer was tried for war crimes against the Hopi and Zuni during his most famous expedition, which sought the Seven Cities of Gold at Cibola but instead found the Grand Canyon. For 10 points, name this conquistador who explored the American Southwest.
ANSWER: Francisco Vázquez de **Coronado**

2. In the foreground of one painting by this artist, a tambourine lies next to two masks in front of staves topped with pinecones, which lie on the ground, near a statue of the title god, whose face is smeared with red juices. This artist of *The Triumph of Pan* showed a dead Greek general's ashes being gathered by his widow in one of his two paintings about the death of Phocion. In one painting by him, Aurora flies ahead of Apollo's chariot, while down below Poverty, Labor, Wealth, and Pleasure hold hands while moving in a circle. He was inspired by Guercino to paint four shepherds reading the title inscription on a large sarcophagus. For 10 points, name this French Baroque painter of *A Dance to the Music of Time* and *Et in Arcadia Ego*.
ANSWER: Nicolas **Poussin**

3. An Ottoman army was apocryphally frightened off by priests from St. Justine's waving this saint's skull over the walls of Rab, Croatia, either by his divine intercession or by making the enemy realize that the town was full of insane skull-removing priests. Scholars identify this man with the Egyptian St. Minas. According to the *Golden Legend*, this man sought out a bandit after hearing a king say he feared the devil, but left after finding the bandit feared Jesus. Various translation errors led Orthodox iconographers to depict this man as a hulking giant with the head of a dog. A hermit told this man to use his large size to ferry people across a river. For 10 points, name this patron saint of travelers who thus became understandably known as "Christ-bearer."
ANSWER: St. **Christopher**

4. The mass distribution of these things can be estimated using functions named for Kroupa or Miller-Scalo. These objects are typically studied using the infrared spectrum, because visible light is absorbed by the matter surrounding them. These objects were *originally* proposed to compose Herbig-Haro objects, which are now known to be the shockwaves caused by their older counterparts. They form when the critical Jeans length is reached. These objects are still surrounded by a ring of gas and dust, which is blown away when they start following the Hayashi and Henyey tracks. They form where a molecular cloud undergoes gravitational collapse. For 10 points, name these very young objects that have just started becoming stars.
ANSWER: **protostar**s [prompt on **star**s; accept **pre-main-sequence star**s, accept **young stellar object**s or **YSO**s, but prompt on descriptions like "young stars"]

5. A character in this novel sees the message "Ye shall eat the flesh of the mighty, and drink the blood of the princes of the earth" written in red chalk in an alleyway and waits at noon the next few days for the writer to appear. A character in this novel asks whether Mozart was a fascist or a Nazi, after hearing his music being hummed by a girl who is deeply moved while hiding in some bushes and hearing the *Eroica* symphony on the radio. One character in this novel has a relationship with Harry Minowitz, and another commits suicide after the death of his friend Spiros Antonapoulos. Dr. Copeland, Jake Blount, Mick Kelly, and Biff Brannon are brought together by the deaf-mute John Singer in, for 10 points, what first novel by Carson McCullers?
ANSWER: The **Heart is a Lonely Hunter**

6. From 1946-7, this musician made exclusive recordings for Dial Records, often with his namesake septet. This musician had his name listed as "Chan" when playing as part of the quintet for *Jazz at Massey Hall*. One of this artist's contrafacts on "rhythm changes" was titled for the nickname of his drug dealer. This musician had to be physically held up by Ross Russell during a impassioned drunken performance of "Lover Man." The Clique Club was renamed after this man, who quoted the difficult clarinet solo from "High Society" in a song that was based off the chords from Ray Noble's "Cherokee." Along with Dizzy Gillespie, this composer of "Moose the Mooche" and "Ko-Ko" is considered a founder of bebop. For 10 points, name this jazz saxophonist who was nicknamed "Bird."
ANSWER: (Charles) "Charlie" **Parker**, Jr.

7. A thin blanket of mist sent by Poseidon saved the conjoined twins Eurytus and Cteatus from this man's wrath. Telemachus is accompanied by one of this man's sons on a visit to the abode of Menelaus and Helen, while another of this man's sons sacrifices himself to protect this man from Memnon. The shapeshifting Periclymenus was among this man's many siblings to be killed by Heracles, who also slew this man's father Neleus. This father of Peisistratus and Antilochus didn't pillage at all after the fall of Troy, so his ships were the only ones to safely return to his native Pylos. This "Gerenian horseman" rarely uses his solid golden shield, instead putting his efforts into mediating between Agamemnon and Achilles. For 10 points, name this wise old king from the *Iliad* and the *Odyssey*.
ANSWER: **Nestor**

8. It's not making light monochromatic, but resolution in this process can be improved by using a Wien filter. One type of this process sees a spark applied to a namesake "torch" of three concentric quartz tubes, creating an argon discharge. In-source fragmentation is generally avoided in this process, though one "squared" type of it relies on fragmentation between its iterations. When this technique is applied to chlorine-containing compounds, it will produce two nearby peaks, one three times the size of the other. A Taylor cone is observed when ESI is used right before this process, though sometimes MALDI is used to ionize compounds instead. For 10 points, name this technique which separates analytes based on their weight-to-charge ratio.
ANSWER: **mass spec**trometry [prompt on **ionizing** but accept answers like "ionizing before mass spec"]

9. Maria Guyomar de Pinha became the darling of this kingdom's court after introducing them to the wonder of custard-based desserts, but was later enslaved after the execution of her husband in a coup by its xenophobic ruler Phetracha. That husband, Constantine Phaulkon, led Louis XIV's delegation to King Narai of this state, which adopted the *mandala* political model under Trailok, who became the first "King of the White Elephants." This state defeated the Burmese Taungoo dynasty under elephant-riding conqueror Naresuan, and entered into a union with nearby Sukhothai. It gave way to the short-lived Thonburi kingdom under Taksin, which itself was supplanted by the Chakri dynasty. For 10 points, name this predecessor of modern Thailand that ruled from 1351 to 1767.
ANSWER: **Ayutthay**a [be generous with pronunciation; accept **Krung Tai** or **Tai Country**; prompt on **Siam** or **Thailand** until mentioned]

10. A character who is paranoid that this will happen coughs after drinking brandy, and worries that the cough might be a sign of this process. Before doing this, a man yells "The swamps! The swamps!" and declares humanism to be dead. One person in the process of doing this repeatedly states "Br…" and complains of a headache, while refusing his friend's attempts to call the doctor. The first named person to do this action is Mr. Beouf, who is promptly fired by Mr. Papillon. People undergoing this action have their skin turn greener and their voice sound increasingly hoarse. The last person who does this is Daisy, which prompts Berenger to exclaim "I'm not capitulating!" For 10 points, name this animal transformation that befalls many characters in a play by Eugene Ionesco.
ANSWER: turning into a **rhinoceros**

11. [NOTE TO MODERATOR: Please read the string of pitches in the third sentence very slowly]
Astor Piazzolla's opera *Maria de Buenos Aires* includes a piece titled for this form and "Misterioso." If one component of this kind of piece includes direct skips between dominant and tonic scale degrees, another component will be "tonal" instead of "real." A sonata in this genre begins with the rising six-note motive G - B-flat - E flat - F-sharp - B-flat - C-sharp, and was purportedly inspired by a cat walking on Domenico Scarlatti's harpsichord. The second movements of J.S. Bach's sonatas for solo violin are all this type of piece. Twelve of these are interspersed with interludes in Paul Hindemith's *Ludus Tonalis*. J.S. Bach paired these pieces with preludes in his *The Well-Tempered Clavier*. For 10 points, name this contrapuntal genre based around imitative entrances of a subject.
ANSWER: **fugue** [or **fuga**]

12. One of this author's protagonists feels that Dickens, Tolstoy, Hugo, and Dostoevsky wrote for naught, when she looks out a window and sees two policemen leading a group of twenty prisoners, handcuffed together. In a novel by this author, Willi reads from Stalin while Jimmy watches an ant-eater battle with an ant, during a hunt for pigeons to put in Mrs. Boothby's pie, at the Mashopi hotel. Douglas Knowell is disastrously married to Martha Quest in this author's *Children of Violence* series. The protagonist of her most famous novel keeps four color-coded journals, which she hopes to tie together into the title book; that protagonist is Anna Wulf. For 10 points, this Rhodesian-British author, known for writing feminist science fiction and *The Golden Notebook*.
ANSWER: Doris **Lessing**

13. Tensions between settlers and this tribe flared over the supposed theft of Alexander Findley's horses, leading to the death of Wilhautyah. Adolescents in this tribe went on quests to find guiding spirits known as *weyekins*. The Lewis and Clark expedition met one of this tribe's leaders, Twisted Hair. Poker Joe was a member of this tribe, whose leaders Looking Glass and Ollokot were killed at the Battle of Bear Paw by forces under Nelson Miles and O.O. Howard. After being caught just shy of the Canadian border, the leader of this tribe declared "I will fight no more forever." For 10 points, name this Native American tribe led by Chief Joseph, whose people were erroneously described as having pierced noses.
ANSWER: **Nez Perce** [or **Nimiipuu**]

14. In this book, a passage from Trotsky about all men becoming like Goethe is used to suggest that egalitarianism is rooted in a problem of "self-esteem." This book reformulates Locke's theory of property to require not only laboring on, but also improving the property, which it calls the "Lockean proviso." This book's author traces a hypothetical path from individuals banding together to protect each other's rights to the emergence of a "dominant protective agency." This book defends free choices that result in an unequal wealth distribution, using the thought experiment of people paying a quarter to see basketball player Wilt Chamberlain. Written as a response to Rawls' *A Theory of Justice*, for 10 points, name this defense of a libertarian conception of the minimal state, by Robert Nozick.
ANSWER: ***Anarchy, State, and Utopia***

15. A technique named for Pauli and Villars can aid in this process. When using this process, one can set a short-distance cutoff to get a picture of high-energy behavior, though that typically leads to one quantity acquiring an anomalous dimension. A mathematical construct named for this process encodes the running of the coupling constant, and applying that construct to the Kondo effect and phase transitions won Kenneth Wilson the Nobel Prize. This process is required when the integrand in Feynman diagrams with loops falls off insufficiently quickly for high-momentum virtual particles. Schwinger related this technique to zeta function regularization. Feynman derisively referred to it as "hocus-pocus." For 10 points, identify this technique used to get rid of infinities in quantum field theories.
ANSWER: **renormalization** [accept word forms, prompt on **regularization**]

16. This poet observed "Yet happy they whom Grief doth bless, / That weep the more, and see the less" in a poem that was written as a response to Richard Crashaw's "The Weeper." This author of "Eyes and Tears" addresses a man by noting "But thou, the war's and fortune's son, / March indefatigably on" and likening him to "A Caesar he ere long to Gaul, / To Italy an Hannibal." He told the story of Isabel Thwaites in a poem about Thomas Fairfax's country home, Appleton House. In another poem by him, the speaker notes "the grave's a fine and private place / but none, I think, do there embrace," and describes hearing "Time's wingèd chariot hurrying near." For 10 points, name this English metaphysical poet of "An Horatian Ode Upon Cromwell's Return from Ireland" and "To His Coy Mistress."
ANSWER: Andrew **Marvell**

17. While at an air force base, this character accidentally ejects himself out of a fighter plane while randomly pushing buttons, while venting about a psychiatrist. This character, who once misspells the word "choke" during a spelling bee, is delighted to find that his special "flood pants" keep his cuffs dry. He is chased by the FBI in a parody of *The Fugitive* after a friend falsely places him on the Most Wanted List. This character exclaims "You're polishing bone!" when bullies put him in a ball polish machine. In one episode, while cleaning a church-organ, this character buys his best friend's soul for $5. This character, whose catchphrase is "Everything's coming up [his name]," has an unrequited crush on Lisa. For 10 points, name this nerdy-blue haired boy, who is Bart's best friend on *The Simpsons*.
ANSWER: **Milhouse** van Houten

18. The National Congress Battalions waged an effective guerrilla war after an invasion of this country, but were frustrated when the defensive lines created by Nicholas Cottoner proved so robust that even they could not slip through them. The first count of this country was the so-called "New Neptune," Margaritus of Brindisi. The absurd popularity of Civil Commissioner Alexander Ball helped push this country toward Great Britain. The commander Dragut was killed by cannon splinters during a battle in this country that saw fighting at forts Elmo and St. Michael as well as the Senglea Peninsula. Jean Parisot de Valette held off that 1565 Great Siege of this country by Ottoman naval forces, a victory for the Knights Hospitaller. For 10 points, name this island nation ruled from Valletta.
ANSWER: **Malta**

19. A modification of this model can be plotted on a phase space diagram, on which a saddle path goes through two of the quadrants formed by the c-dot and k-dot equals zero loci. Because agents discount future consumption in that variant, the saddle path does *not* intersect the capital-maximizing "golden rule" proposed by this model. This model predicts capital maintains a constant share of output, matching one of Kaldor's "stylized facts." Romer added human capital to the micro-inspired Cobb-Douglass production function at the center of this model. This model added labor to the earlier Harrod-Dommar model. It assumes investment in new capital is a constant fraction of output. For 10 points, identify this neoclassical growth model developed independently by its namesake and Trevor Swan.
ANSWER: **Solow**-Swan growth model [or **neoclassical** growth model before mention]

20. In *S. cerevisiae,* the ARO4 gene codes for a form of DAHP synthase that is inhibited by this compound. This is the *second*-heaviest of the three compounds that can be formed from chorismate at the end of the shikimate pathway. One protein whose functionality relies on this residue is blocked by imatinib, and another group of proteins utilizing it form a signaling pathway with STAT. This residue helps cut the DNA helix at the catalytic site of topoisomerases. The Bcr-Abl protein produced by the Philadelphia chromosome and the Janus proteins are examples of kinases named for this amino acid. An A-A-A-H synthesizes this amino acid by hydroxylating phenylalanine. For 10 points, identify this precursor to dopamine, an amino acid with a phenol side chain.

ANSWER: **tyr**osine [prompt on **Y**]

BONUSES:

1. James Henry Carleton followed the Butterfield Overland Trail to drive enemy forces out of this state. For 10 points each:
[10] Name this site of the Battle of Mesilla. Henry Hopkins Sibley outperformed Edward Canby in this state, but had to retreat after John Chivington burned his supplies.
ANSWER: **New Mexico** [or the **New Mexico Territory**; accept the **Arizona Territory** from Confederate sympathizers but DO NOT accept just "Arizona"]
[10] The aforementioned Battle of Glorietta Pass, the "Gettysburg of the West," occurred during this war. Unsurprisingly, this war also included regular Gettysburg.
ANSWER: The American **Civil War** [accept known alternate names]
[10] Though sent after the Confederates, Carleton's California Column ended up fighting many of its battles against this tribe, who were at the time led by Mangas Coloradas and Cochise.
ANSWER: Chiricahua **Apache**

2. This man introduced a scheme that adds three parity bits to four bits of data. For 10 points each:
[10] Identify this information theorist, whose namesake "distance" between strings of equal lengths represents the number of places at which they differ.
ANSWER: Richard **Hamming**
[10] Parity bits like the ones used in Hamming codes are used for this purpose, which involves finding and fixing incorrect bits. Checksums are often used to quickly aid in this process.
ANSWER: **error** detection/correction/checking [accept basically any reasonable verb as long as they say something about **error**s]
[10] Until the advent of turbo codes, this error-correction system was the most widely used. The code-words used by it are drawn from a table of polynomials over a finite field.
ANSWER: **Reed-Solomon** code

3. Answer the following about *Islamey*, for 10 points each.
[10] *Islamey* is a composition for piano written by this Russian composer, who founded the Mighty Five. His other works include the symphonic poem *Tamara*.
ANSWER: Mily (Alexeyevich) **Balakirev**
[10] This French composer wrote the "Scarbo" third movement of his *Gaspard de la Nuit* to be more difficult than *Islamey*. He also composed the very repetitive *Bolero*.
ANSWER: (Joseph) Maurice **Ravel**
[10]The first melody in *Islamey* is based on a traditional *Lezginka* dance. Another *Lezginka* is the eleventh of the Liszt-inspired *Transcendental Etude*s by this Russian composer, who was nicknamed the "Black Balakirev."
ANSWER: Sergei (Mikhailovich) **Lyapunov**

4. Answer some things about religious pilgrimages in continental Asia, for 10 points each.
[10] Despite it being the only ostensible reason to tolerate the Saudis, people continue to die in huge numbers from preventable accidents during this Islamic pilgrimage to Mecca.
ANSWER: **Hajj**
[10] This city in Uttar Pradesh is an important Buddhist pilgrimage site as it was where the Buddha's first teaching was given and were Gaundinya established the Sangha. It lies just north of Varanasi.
ANSWER: **Sarnath**
[10] Vast numbers of Hindus gather at this festival, which occurs every twelve years at any given site and involves ritual bathing in a sacred river like the Ganges.
ANSWER: The **Kumbh Mela**

5. After La Maga disappears, the protagonist of this novel, Horacio Oliveira, sets out to find her and goes on various adventures with the Serpent Club. For 10 points each:
[10] Name this novel that contains a Table of Instructions instead of a table of contents, which allows for the chapters to be read in an order other than numerical order.
ANSWER: *Hopscotch* [or *Rayuela*]
[10] *Hopscotch* is by Julio Cortazar, an author from this country. This country's epic poem *Martin Fierro* is about its gauchos.
ANSWER: **Argentina**
[10] This Puerto Rican author used Cortazar's short story "Las babas del diablo" as one inspiration for her novel *Yo-Yo Boing!*, which also uses characters from *Hopscotch* such as La Maga.
ANSWER: Giannina **Braschi**

6. Malaysians concerned that this agreement would drive up the cost of medicine protested it by dressing as zombies. For 10 points each:
[10] Name this trade agreement that, if signed, would create increased economic support among many Pacific Rim countries, notably including the United States.
ANSWER: **Trans-Pacific Partnership** [or **TPP**]
[10] This Democratic Senator from Oregon leads a group of congressmen supporting a fast-track bill that would give the President more power in ratifying the agreement.
ANSWER: Ron **Wyden**
[10] The TPP, rather obviously, does not include China, a fact pointed out to Donald Trump during an October 2015 debate by this other Republican nominee. This man is also facing a Senate challenge from openly gay mayor Jim Gray.
ANSWER: Rand **Paul**

7. This man's Admirable Campaign included the infamous "Decree of War to the Death." For 10 points each:
[10] Name this South American liberator and namesake of an Andean nation with capitals at La Paz and Sucre.
ANSWER: Simón José Antonio de la Santísima Trinidad **Bolívar** y Palacios
[10] By winning the Battle of Las Horcones, Bolivar secured independence for this country, where an even larger victory at Carabobo enabled the creation of the Gran Colombia. Carlos Andres Perez carried out the bloody Plan Avila during unrest in this country in 1992.
ANSWER: The Bolivarian Republic of **Venezuela**
[10] Gran Colombia's founding document was this constitution drafted by the Congress of Angostura in the namesake Colombian city. It remained in force until Gran Colombia's collapse in 1831.
ANSWER: The Constitution of **Cúcuta** [accept the **Constitution** of **1821**]

8. The protagonist of this novel grows jealous after not being invited to see a snake in a pond, then pushes her cousin into mud and attempts to run away with gypsies. For 10 points each:
[10] Name this novel about Tom and Maggie Tulliver, the latter of whom has love affairs with Philip Wakem and Stephen Guest.
ANSWER: The *Mill on the Floss*
[10] This Victorian author of *The Mill on the Floss* included Dorothea Brooke's marriage to Edward Casaubon in her sprawling novel *Middlemarch*.
ANSWER: George **Eliot** [or Mary Ann **Evans**]
[10] In *Middlemarch*, Casaubon posthumously besmirches Dorothea's reputation by including a codicil in his will that states that she will lose all the money willed to her, should she perform this specific action.
ANSWER: **marry Will Ladislaw** [prompt on just "marry" or "remarry"; accept either name for "Will Ladislaw"]

9. The Hock process produces this compound and phenol from benzene and propylene. For 10 points each:
[10] Name this simplest ketone, which is often found in nail polish remover.
ANSWER: **acetone** [or **propanone**]
[10] The Hock process for phenol production is often named for this compound, the intermediate formed during it. DMBA can also be produced when it oxidizes to form its namesake hydroperoxide.
ANSWER: **cumene** [or **isopropylbenzene**]
[10] One of these reactions attaches the propylene to benzene in the first step of the cumene process. Gatterman and Koch developed a modification of this reaction using carbon monoxide and hydrochloric acid.
ANSWER: **Friedel-Crafts** reaction/alkylation [prompt on **e**lectrophilic **a**romatic **s**ubstitution or **EAS**]

10. This philosopher defined four grades of "occasions of experience," which "actual entities" are subject to and defined by. For 10 points each:
[10] Name this author of *Science in the Modern World*, who spearheaded modern process philosophy with his book *Process and Reality*.
ANSWER: Alfred North **Whitehead**
[10] Whitehead is better known for attempting to provide a rigorous logical basis for math in *Principia Mathematica,* which he co-wrote with this other 20th-century British philosopher.
ANSWER: Bertrand (Arthur William) **Russell**, 3rd Earl Russell
[10] Whitehead's philosophy has become extremely popular in this country, due to the advocacy of its Institute for Postmodern Development.
ANSWER: People's Republic of **China**

11. The artist's mistress Maria Zambaco was the probable model for the central female figure in this painting. For 10 points each:
[10] Name this painting in which a woman reads from a magic book as the branches of a hawthorn bush trap an older man behind her.
ANSWER: The *Beguiling of Merlin*
[10] *The Beguiling of Merlin* is by Edward Burne-Jones, a member of this group of English painters that included John Everett Millais, and who tried to mimic the Italian style as it existed before a certain Renaissance painter.
ANSWER: **Pre-Raphaelite** Brotherhood [or **PRB**]
[10] In this painting by John Everett Millais, a red-haired Jesus kisses the cheek of Mary while showing his injured hand, in the foreground of Joseph's workshop.
ANSWER: *Christ in the House of His Parents*

12. This body of water transported a sealed coffin containing the body of Osiris to Byblos. For 10 points each:
[10] Name this prominent Egyptian river that connected the sacred cities of Heliopolis and Memphis.
ANSWER: the **Nile** River
[10] This crocodile-headed husband of Renenutet was often appeased by those who wished to safely travel along the Nile.
ANSWER: **Sobek** [or **Suchos**; or **Sebek**; or **Sochet**]
[10] Some claimed that the Nile originated near the island of Elephantine, which was home to this ram-headed god's primary temple.
ANSWER: **Khnum** [or **Khnemu**]

13. In this short story, the protagonist is initially a teenager working as a golf caddy, where he first meets Judy Jones. For 10 points each:
[10] Name this short story, in which Dexter Green's affair with Judy ends only when he realizes he can't continue with his idealized romanticism.
ANSWER: "**Winter Dreams**"
[10] "Winter Dreams" is a short story by this author, who is better known for writing *The Great Gatsby*.
ANSWER: F(rancis) Scott (Key) **Fitzgerald**
[10] In "Babylon Revisited," the protagonist, Charlie Wales, travels to this city following the stock market crash of 1929 to pick up his daughter Honoria. This city is also the primary setting of Hemingway's *A Moveable Feast*.
ANSWER: **Paris**, France

14. Consumption of this substance can lead to a flushing of the skin common in Asian populations. For 10 points each:
[10] Name this two-carbon compound which serves as a nervous system depressant. It can be produced via the fermentation of sugars by yeast.
ANSWER: **ethanol** [or ethyl **alcohol**]
[10] Alcohol dehydrogenase converts ethanol to this compound, which is responsible for redness of the alcohol flush. It's significantly more toxic than alcohol, and responsible for most hangover symptoms.
ANSWER: **acetaldehyde** [or **ethanal**]
[10] This drug can induce a flush in people of all ethnicities and an instant hangover by inhibiting acetaldehyde dehydrogenase. It is sometimes used to assist recovering alcoholics.
ANSWER: **disulfiram** [or **Antabus**e]

15. This man was succeeded by his sons Hippias and Hipparchus, the latter of whom was murdered by Harmodius and Aristogeiton. For 10 points each:
[10] Name this three-time tyrant of Athens, a populist foe of Megacles and Lycurgus who inaugurated the Panathenic Festival.
ANSWER: **Pisistratus** [or **Peisistratos**]
[10] Hippias was exiled to Persia after he surrendered Athens to this Spartan king, who also meddled with Athenian politics by supporting Isagoras against Cleisthenes. He kept Sparta neutral during the Ionian Revolt.
ANSWER: **Cleomenes I** [prompt on partial answer]
[10] Cleomenes was hesitant to back Aristagoras of Miletus against this Persian king, the father of Xerxes, whose invasion of Greece was stifled at the Battle of Marathon.
ANSWER: **Darius I** [or **Darius the Great**; prompt on partial answer]

16. One member of this family marries the roofer Coupeau in the novel *L'Assommoir* and gives birth to the future prostitute Nana. For 10 points each:
[10] Name this family whose negative hereditary traits are carried on by the Lantiers in a series of French novels, in which their lower-class struggles contrast with another family's upper-class fortunes.
ANSWER: **Macquart**s
[10] The Macquarts appear in the *Les Rougon-Macquart* series of this French author, who also wrote the letter "J'accuse."
ANSWER: Emile **Zola**
[10] This seventeenth novel in *Les Rougon-Macquart* deals with railroad employees Roubaud and Jacques Lantier and their relationships following the murder of Grandmorin.
ANSWER: *La **Bête Humaine*** [or ***The Human Beast***; or ***The Beast Within***; or ***The Beast in Man***; or ***The Monomaniac***]

17. Examples of these properties include entropy and volume. For 10 points each:
[10] Identify these properties, which, unlike bulk properties, scale with the size of a system.
ANSWER: **extensive** properties
[10] This extensive thermodynamic property is typically symbolized U. Its change is equal to the sum of heat added and external work done on the system.
ANSWER: **internal energy**
[10] Applying this function to a property dependent on variable X gives a new quantity dependent on the conjugate of X. Though both functions encode basically the same information, one is often easier to work with.
ANSWER: **Legendre** transformation

18. The essay that popularized this concept applied it to a case of sheep-stealing among Jews in Morocco. For 10 points each:
[10] Name this ethnographic method of situating individual behavioral acts within the broader cultural context from which they take their meanings.
ANSWER: **thick description**
[10] The idea of "thick description" was adapted from Gilbert Ryle by this symbolic anthropologist, the author of *The Interpretation of Cultures* and *Islam Observed*.
ANSWER: Clifford (James) **Geertz**
[10] This Saudi anthropologist and author of *Formations of the Secular* criticized Geertz's methodology in *Anthropological Concepts of Religion: Reflections on Geertz*.
ANSWER: Talal **Asad**

19. One marble sculpture of this figure was commissioned for the exterior of the Florence Cathedral, but it was never placed in its intended spot because it couldn't be seen well from the ground. For 10 points each:
[10] Name this Biblical figure depicted by Donatello in a bronze statue likely commissioned by Cosimo de' Medici. At his feet lies the head of a very large Philistine.
ANSWER: **David**
[10] Fourteen of Florence's guilds each commissioned a statue of their patron saint for the exterior niches of this church. Donatello contributed two statues, one of St. George and one of St. Mark.
ANSWER: **Orsanmichele**
[10] This other artist created a statue of Isaiah for the same purpose as Donatello's marble *David* that was also not placed on Florence Cathedral. He is best known for his sculpture *Four Crowned Saints* on the exterior of Orsanmichele and collaborated with Brunelleschi and Donatello on the Duomo.
ANSWER: **Nanni** di **Banco** [accept either underlined part]

20. Answer the following about hard work in Britain, for 10 points each:
[10] Slaves in Roman Britain mostly worked in this industry, which used the age's most advanced hydraulic and cupellation technology at sites like Dolaucothi in modern Wales and the Mendips in Somerset.
ANSWER: **mining** [accept equivalents and more specific answers like gold or coal **mining**]
[10] This politician probably longed for the good old days when you didn't have to pay miners anything at all while contending with Arthur Scargill's coal strike. She was known as the "Iron Lady."
ANSWER: Margaret **Thatcher**
[10] Stressed-out workers in Roman Britain could relax at this massive bath complex in Somerset, dedicated to a namesake goddess linked to Minerva. Workers who didn't feel like relaxing could alternatively use a "curse tablet" at this place to hex the shit out of people.
ANSWER: **Aquae Sulis** [or the **Waters** of **Sulis**]