Terrapin Invitational Tournament 2013: "Make your own judgments, but we wrote this set in good faith"
Packet by Michigan A (Will Nediger, Kurtis Droge, Libo Zeng)

Tossups

1. It's not conductance, but this quantity sharply increases in the punch-through effect because effective width of the base becomes zero. The forward and reverse transport factors along with the value of two types of reverse saturated versions of this quantity are the four parameters in the Ebers–Moll model. In classical mechanics, any variable that satisfies the continuity equation is one of these named for Noether. The density of this quantity decreases exponentially away from the surface in the skin effect. Inverters and rectifiers are used to change between two forms of this quantity, which is proportional to the drift velocity. Diodes force this quantity to pass in a single direction. For 10 points, name this quantity, which, by Ohm's law, gives voltage when multiplied by resistance, and is measured in amperes.
ANSWER: **current** [prompt on "*I*"]

2. In this novel's first chapter, the protagonist accidentally leaves behind a book which he has hidden in the covers of a romance novel called *La Eterna Martir*. This novel's protagonist criticizes a Gideon Bible designed for salesmen, which he finds at the home of the widower Mr. Lehr. In its final chapter, a boy named Luis spits on the gun which is used to kill the protagonist. Other characters in this novel include the dentist Tench and a teenager who befriends the protagonist named Coral Fellows. The protagonist of this novel is betrayed by a mestizo and has a daughter named Brigitta. That protagonist is hunted by the Lieutenant who pursues him throughout Mexico. For 10 points, name this novel about a "whiskey priest" by Graham Greene.
ANSWER: The ***Power and the Glory***
[edited]

3. This man continued to be elected to the House of Commons even after charges of misconduct as war secretary got him imprisoned in the Tower of London. Though this man and his brother-in-law, Lord Townshend, were unsuccessful in their opposition to the repeal of the Test Act, he later led successful opposition to the Peerage Bill proposed by James Stanhope. Late in his career his power was weakened by the failure of his proposed expansion of the excise tax, the opposition of the "boy patriots," and the death of his friend Queen Caroline. He resigned as prime minister shortly after leading Britain into the War of Jenkins' Ear, though he had came to power shortly after the burst of the South Sea Bubble. For 10 points, name this man who, under George I and George II, is considered to have been Britain's first prime minister.
ANSWER: Robert **Walpole**, 1st Earl of Orford
[edited]

4. Late in this painter's life, he created a portfolio of his works in mezzotint that sought to bring about the idea of *chiaroscuro* embodied in nature. A blonde woman with a tilted head holds two of the titular birds in this artist's *Girl with the Doves*. This collaborator with David Lucas showed a barge that extends to the left of a canvas that carries the title animal in his early painting *The White Horse*. He showed a river winding in the distance towards a small town in his depiction of *Dedham Vale*. The cottage of Willy Lott can be seen on the left of his best known work, in which a horse-drawn conveyance moves along the River Stour. "From the Meadows" and "From the Bishop's Grounds" are the locations of two of his paintings of Salisbury Cathedral. For 10 points, name this British landscape painter of *The Hay Wain*.
ANSWER: John **Constable**
[edited]

5. One book on this topic proposes that a meaning theory of justification is necessary to lay a "logical basis" for this discipline. That work by Michael Dummett was a response to the tendency of many philosophers to regard it as useless. A book titled after this topic introduces the idea that substances are compound forms, which is termed hylomorphism. The view that logical positivists regard this discipline as illogical, meaningless and semantically incorrect is examined in the first chapter of *Language, Truth, and Logic*, which also calls for its dismantling. One book titled for this discipline distinguishes between potentiality and actuality and introduces its author's unmoved mover argument. This branch of philosophy is primarily concerned with first causes and being. For 10 points, identify this branch of philosophy, with a name suggesting its scope beyond that of physics.
ANSWER: **metaphysics**
[edited]

6. This equation was motivated by noting that a correction needed to be made to an equation given by Guldberg and Waage, and it was modified to consider association between oppositely charged ions by Niels Bjerrum. One alternative to this equation includes a sum over parameters that are derived from experimental calculations of the osmotic coefficient and is used for higher molarities; that is the Pitzer equation. It states that the natural log of gamma is proportional to the square of the charge number of the species and the square root of the ionic strength of the solution. One of its namesakes names a rule for aromaticity and the other names a unit of electric dipole moment. For 10 points, name this doubly eponymous equation for calculating activity coefficients.
ANSWER: **Debye–Huckel** equation or theory
[edited]

7. A goatherd of this kingdom had his nose and ears chopped off before doggies were allowed to feast on his genitals. The ancient god Phorcys made his realm this locale. A traveller to this kingdom duels with the arrogant messenger Arnaeus and wins by shattering his jaw; that traveller later has an ox's hoof thrown at him by Ctesippus. It is ruled by a man whose servants include Melanthius, the loyal cowherd Philoeteus, and the swineherd Eumaeus. Antinous and Eurymachus vie for the hand of its queen. A dung pile in this kingdom is the location of a loyal doggie named Argos, who recognizes his master's return. It is ruled by a man who was detained by Calypso after the Trojan War, and that king has a son named Telemachus. For 10 points, identify this island kingdom ruled by Odysseus.
ANSWER: **Ithaca** or **Ithaka**
[edited]

8. During this election, supporters of one candidate issued a document called "The Letters of Wyoming." One running mate in this election was a North Carolina senator who had declined to run, and that man, Nathaniel Macon, later became President Pro Tem of the Senate. One candidate in this election was opposed in North Carolina by a group called the People's Ticket and supported in New York by a coalition called the People's Party. That candidate, the standing Treasury Secretary, was William Crawford, who was in poor health. The frontrunners in this election received 99 and 84 electoral votes, so the victor of this election was chosen by the House of Representatives. That victor promptly named Henry Clay as his Secretary of State. For 10 points, name this election in which John Quincy Adams won by virtue of what the loser Andrew Jackson called a "corrupt bargain."
ANSWER: U.S. presidential election of **1824**
[edited]

9. The reader is informed that this character is the second of three children and that he is often called the "phoenix of the family." In chapter 9, his stupefied state is compared to that of a man being thrust into a deep black sack. In one scene, his facial expression puts a stop to a conversation about Sarah Bernhardt's acting abilities. This character's friends include Schwartz, a jovial man who constantly thinks about bridge, and Peter Ivanovich. Although his family, which includes his son Volodya and his wife Praskovya, deceives him, his servant Gerasim is able to provide

solace after he injures himself hanging curtains. For 10 points, name this judge whose death is chronicled in a novella by Leo Tolstoy.
ANSWER: **Ivan** **Ilyich** [accept either name]
[edited]

10. One test to discover this condition involves asking a question about where Sally will be looking for her marble, once Anne has moved it away. Uta Frith chronicled her research into this phenomenon in a book subtitled "Explaining the Enigma" and suggested weak central coherence theory as an explanation for it. Vilayanur Ramachandran concluded that it is caused by broken mirror neurons. Simon Baron-Cohen's theory of "mind-blindedness" may explain it, subtypes of which include Rett's Syndrome and Heller's Syndrome. A bullshit article authored by Andrew Wakefield attributed it to the MMR vaccine. For 10 points, Asperger's syndrome is an example of what class of neurodevelopmental disorders, which often include some form of social awkwardness or mental retardation?
ANSWER: **autism** spectrum disorders
[edited]

11. He isn't Art Blakey, but one piece by this man often began in performance with a long baritone saxophone solo and was titled "Moanin'." That song appeared on an album heavily influenced by church music, including the tracks "Wednesday Night Prayer Meeting" and "My Jelly Roll Soul." This artist behind the album *Blues & Roots* performed in a trio with Max Roach and Bud Powell, and this man named one song after a former Arkansas governor. That song, "Fables of Faubus," appeared on an album along with his tracks "Better Get It in Your Soul" and a song written as a tribute to Lester Young, "Goodbye Porkpie Hat." For 10 points, name this upright bassist and jazz musician, known for self-titled albums like *[His Name] Ah Um*.
ANSWER: Charles **Mingus**

12. This man appointed the marshal de Biron to represent him at a meeting in Darnetal. One attempt to have this monarch's predecessor restored was led by John Holland and John Montagu, the Earls of Salisbury and Huntingdon, and was known as the Epiphany Rising. This man's grandfather was Edward III, and this ruler led victorious forces at the Battle of Bramham Moor. This man's father served as Duke of Lancaster, and the reign of this son of John of Gaunt also included an unsuccessful revolt by Owen Glendower. Though not William the Conqueror, this king was victorious in a battle that saw his opponent take an arrow to the face; that opponent was Henry Percy, who lost the Battle of Shrewsbury. For 10 points, name this English king, whose reign included the death of his predecessor, Richard II and who had a Shakespeare play written about him.
ANSWER: **Henry IV** [prompt on **Henry**]
[edited]

13. The purposes of this practice are enumerated in the 60th *ayah* of the Surah at-Tawbah, which indicates that it can be performed for the benefit of "those whose hearts it is necessary to conciliate." A specific form of this practice takes place mandatorily between sunset on the last day of Ramadan and the beginning of the Eid prayer. A criterion used to determine who must perform this practice is called *nisab*. Related practices include *khums*, which is practiced by the Twelvers, and a voluntary practice known as *sadaqah*. Its name means "purification" in Arabic. An equivalent of this practice required of non-Muslims in Muslim states is known as *jizya*. For 10 points, name this Pillar of Islam which involves the giving of alms as a form of tax.
ANSWER: **zakat** [prompt on things like "almsgiving" or "taxpaying" before mentioned]

14. One possible immunogen of this agent is gp350/220, the glycoproteins on its surface that allow entry into the host. One cell line that releases this virus was the B95-8 which was created by transforming certain cells in marmosets with it, and the Akata cell line produces a version more similar to wild type viruses. This agent can be

detected by a version of the heterophile antibody test known as the Paul–Bunnell test. This agent binds to the CR2 receptors of the cells which it infects. Cancerous cells infected with this virus are common in cases of nasopharyngeal carcinoma, and it is also implicated in a form of cancer which produces cells with a "starry sky" appearance, Burkitt's lymphoma. For 10 points, name this herpesvirus which causes mononucleosis.
ANSWER: **Epstein–Barr** virus [accept **EBV**; accept **human herpesvirus 4**]
[edited]

15. A novel titled after these objects sees the religious Patria lead her revolutionary group into a union with the resistance fighters of her sister Minerva. A play whose title mentions one of these animals is about a civil servant named Rene Gallimard who falls in love with an opera singer who turns out to be a man in disguise. One of these objects appears in the title of a Julia Alvarez work about the Mirabal sisters, and the appearance of one on a coffin is used to explain the importance of hope to Rufus Follett in *A Death in the Family.* In a different work, the death of one of these animals leads to the fascist Deutscher defeating Keith in an election. That occurs after the hunter Eckles steps on one in Ray Bradbury's "A Sound of Thunder." Vladimir Nabokov was an expert on these animals. For 10 points, name these insects studied by lepidopterists.
ANSWER: **butterfly** [or **butterflies**]

16. This piece calls for a tam-tam *ad libitum* which is only struck once, near the end of the finale. The first movement of this work launches into an explosive *allegro vivo* after the clarinet and bassoon finish the second theme, though the latter can be substituted for bass clarinet to achieve the necessary dynamic level. This work closes with the cellos and half of the basses sustaining the tonic triad while the other half of the basses play five final pizzicato B's. The second movement of this work is a limping waltz in 5/4 time. While the third movement is a triumphant march, it is followed by a hauntingly quiet and somber adagio finale, which some have called the composer's suicide note owing to his death shortly after the premiere. For 10 points, identify this B minor symphony, the last by Peter Tchaikovsky.
ANSWER: **Tchaikovsky's Symphony No. 6**, Op. 74 or "**Pathétique**" ["Tchaikovsky" is not required after mention]
[edited]

17. This character is at one point told by his neighbor to turn to channel 19 to see breasts, and that neighbor later tells him "I believe you'd get your ass kicked saying something like that" in response to a question regarding Mondays. This character sees a hypnotist at the behest of his girlfriend, but that hypnotist dies of a heart attack. This character bonds with a girl over a mutual love of the show *Kung Fu*, and this man is friends with Michael Bolton. This character finds himself promoted after telling two efficiency experts about how little work he does, but his plan to embezzle money with his friends fails dramatically. This character is subject to the whims of his awful boss Lumbergh, played by Gary Cole. For 10 points, name this corporate drone played by Ron Livingston, the main character of *Office Space*.
ANSWER: **Peter Gibbons** [accept either]

18. One work of literature inspired by these objects bemoans the "iniquity of oblivion," asking "Who can but pity the founder of the Pyramids?" even though "Herostratus lives [as the man] that burns the temple of Diana." A book titled for one of these objects argues that to paraphrase a poem in order to understand its meaning is heresy. Thomas Browne wrote *Hydriotaphia* after finding some at Norfolk, and in "The Canonization," Donne writes of a "well-wrought" one. One of these title objects inspires a "heart high-sorrowful and cloy'd, a burning forehead, and a parching tongue" in the speaker. That object appears in the title of a poem that asks "What men or gods are these? What maidens loth? What mad pursuit?" and "What wild ecstasy?" For 10 points, name these objects, one of which is a "still unravish'd bride of quietness" in an ode by John Keats.
ANSWER: **urn**s [accept **vase**s]

19. Omega languages with this property consist of infinite words which are equivalent to Büchi automata. This property describes sets of strings which correspond to DSPACE of big O of one; such languages must have a finite number of "distinguishing strings" such that each appended string forms an equivalence class. These languages are the subject of the Myhill–Nerode theorem and correspond to type-3 languages, right-linear grammars, and left-linear grammars. Concatenation and the Kleene Star are two operations that can be applied to a tool described by this adjective, which can be used to search for strings. For 10 points, expressions that are used by Linux's "grep" can be described by what adjective?
ANSWER: **regular** [accept **type-3** before mention]
[edited]

20. A popular liberal leader of this country is the namesake of a terrorist group in this country known as the AVC, whose name declares that leader "lives, dammit!" This country's president Ignacio de Veintemilla was opposed by the journalist Juan Montalvo, whose writings are said to have influenced the assassination of a conservative president of this country. For much of the 20th century, this country was led by the five-time president José María Velasco Ibarra, and its other presidents include the aforementioned Eloy Alfaro and Gabriel García Moreno. This modern-day country was the site of a meeting between Bolívar and San Martín, which took place in the same year as the Battle of Pichincha, which also happened here. For 10 points, name this country currently led by Rafael Correa, which is the site of the location of the Guayaquil Conference, and which has its capital at Quito.
ANSWER: Republic of **Ecuador**
[edited]

Extras

21. This effect is the basis for investigating the interactions between proteins and metals and the secondary and tertiary structures of proteins via circular dichroism. Using the model of an asymmetric tetrahedral carbon, van 't Hoff was one of the first to explain this effect. This effect is similar to the Faraday effect and is a type of birefringence. Molecules that exhibit this effect are classified as dextro- or levo- depending on whether this effect was right or left handed. Chemically synthesized tartaric acid does not display this effect. Only chiral molecules exhibit this effect that depends on polarization. For 10 points, name this effect in which light turns when it passes through an organic molecule.
ANSWER: **optical rotation** [accept **optical activity**; I guess prompt on "chirality" before mention]

22. An island in this body of water produces a sheep's milk cheese called Paški Sir. The tide peaks in the northern part of this body of water which cause flooding are known in one language by a name meaning "high water." Most of the largest islands in this body of water lie in the Kvarner Gulf, including the aforementioned Pag Island as well as its two largest islands, Cres and Krk. One city on this body was formerly known as both Epidamnus and Dyrrhachium. Aside from Durrës, cities on this body of water include Dubrovnik and Trieste. This body of water, which is connected to the Ionian Sea by the Strait of Otranto, is home to ports such as Bari, Split, and Venice. For 10 points, name this arm of the Mediterranean which lies between Italy and Croatia.
ANSWER: **Adriatic** Sea [prompt on "Mediterranean Sea" before mention; accept **Kvarner** Gulf before "high water"]

Bonuses

1. This work claims that talking about white and black people is a horrible generality, and some of its late sections see the levelling of accusations of anti-semitism. For 10 points each:

[10] Name this book, a tape recording of a conversation held between two eminent academics about topics such as religions, civil liberties, and prominent figures of their age.
ANSWER: *A **Rap on Race***
[10] One of the authors of *A Rap on Race* was this anthropologist who came under fire for the questionable research methods she employed while gathering the source material for her *Coming of Age in Samoa*.
ANSWER: Margaret **Mead**
[10] Another book on race is this one by Herrnstein and Murray, which basically argues that the intelligence quotient of humans is linked to that of race. Gould's *The Mismeasure of Man* responded to its claims.
ANSWER: *The **Bell Curve***

2. Answer the following about propositional attitudes, which are mental states that represent the world and some underlying proposition. For 10 points each:
[10] An agent that has propositional attitudes possesses this feature of mental states, defined as directedness by Brentano.
ANSWER: **intention**ality
[10] One example of a propositional attitude is this mental state, which is the state of truth that a person holds about a proposition. It appears as the last word in the title of a William James lecture about truth and religion.
ANSWER: **belief** [accept word forms]
[10] One of the first philosophers to elucidate the nature of propositional attitudes did so in "The Philosophy of Logical Atomism." This man also wrote *Principia Mathematica* with Alfred North Whitehead.
ANSWER: Bertrand **Russell**

3. The American Civil Liberties Union frequently upsets people. For 10 points each:
[10] The ACLU no doubt upset Richard Nixon when it filed an *amicus* brief in the case *New York Times v. United States*, which concerned the publication of these documents detailing U.S. involvement in Vietnam. They were released by Daniel Ellsberg.
ANSWER: **Pentagon Papers** [or "**Report of the Office of the Secretary of Defense Vietnam Task Force**"]
[10] Even some members of the ACLU were upset when its Illinois branch went to court to secure the right of neo-Nazis to march in this notably Jewish Chicago suburb.
ANSWER: **Skokie**
[10] The ACLU defended Mary Dennett, who was accused of violating these laws against distributing obscene material. Dennett had been distributing sex education pamphlets, and Learned Hand ruled in favor of the ACLU in a major victory.
ANSWER: the **Comstock** laws or the **Comstock** Act

4. Answer the following about colonial American poetry. For 10 points each:
[10] This Metaphysical poet's works include *God's Determinations Touching His Elect* and "Upon a Spider Catching a Fly," but he is best known for his poem "The Joy of Church Fellowship Rightly Attended," which begins "Make me, O Lord, thy spinning wheel complete."
ANSWER: Edward **Taylor**
[10] The first published poet in colonial America was this woman, who wrote *The Tenth Muse Lately Sprung Up in America* and "To My Dear and Loving Husband."
ANSWER: Anne **Bradstreet**
[10] This other poet wrote "The governor your husband lived so long moved you not, restless waiting for him?" to begin "Homage to Mistress Bradstreet." His alternate persona of the self-loathing Henry narrates his *Dream Songs*.
ANSWER: John **Berryman**

5. Name some things about that 1971 Nobel Prize Winner in Physics, Dennis Gabor. For 10 points each:

[10] Dennis Gabor won the Nobel Prize for his contributions to the development of this technique in which an image is captured by the interference pattern of the film. This allows the reconstruction of a 3-D image.
ANSWER: **holograph**y [accept word forms]
[10] Dennis Gabor names a modification of the Fourier transform intended for short intervals of this quantity which is pretty important in local analysis. The derivative of velocity with respect to this quantity is acceleration.
ANSWER: **time**
[10] The Gabor transform is used in the analysis of both the time domain and this domain simultaneously.
ANSWER: **frequency**

6. Name the following Swiss authors. For 10 points each:
[10] This Swiss author argued that religious principles should be approached from a rational point of view in a section called "The Creed of the Savoyard Vicar" in his novel *Emile*. He also wrote *The Social Contract*.
ANSWER: Jean Jacques **Rousseau**
[10] This author of an "ahistorical historical comedy" called *Romulus the Great* also wrote the more successful plays *The Visit* and *The Physicists*.
ANSWER: Friedrich **Dürrenmatt**
[10] This author's *Berlin Stories* were recently published by NYRB Classics. His novels include *The Tanners* and *Jakob von Gunten*.
ANSWER: Robert **Walser**

7. His landscapes include *Landscape with a Castle in the Ruins*, and self portraits include one in which a skeleton holds onto him. For 10 points each:
[10] Name this Swiss painter of *Isle of the Dead*.
ANSWER: Arnold **Bocklin**
[10] Arnold Bocklin was a member of this late 19th century movement, which sought to revive some elements of mystical Romanticism. Other practitioners of this loosely defined movement included Fantin-Latour and James Ensor. Jean Moreas wrote its manifesto.
ANSWER: **Symbol**ism
[10] This other Symbolist painted *The Sick Room* as part of *The Frieze of Life*. He depicted a man holding his hands to his face with his mouth agape in his *The Scream*.
ANSWER: Edvard **Munch**

8. This entity's youth wing was called the Jugendbund. For 10 points each:
[10] Name this Nazi paramilitary group that was also known as the Brownshirts. Ernst Rohm was one of the founders of this group that was destroyed during the Night of the Long Knives.
ANSWER: **SA** [accept **sturmabteilung**]
[10] Controlled by Heinrich Himmler, this branch of the SA that was loyal to only Hitler, eventually rose to power after the Night of the Long Knives. Its death squads carried out the Final Solution and the Babi Yar Massacre.
ANSWER: *Schutzstaffel* [or **SS**]
[10] This man's speech at Marburg University was one of the events that triggered the Night of the Long Knives. That speech basically denounced the Reich government's ability to "make history."
ANSWER: Franz von **Papen**

9. Answer the following about a certain type of post-translational modification. For 10 points each:
[10] This post-translation process is the covalent attachment of one protein to another protein in order to modify the latter's function. Changes vary with the modified protein but include inhibiting transcription, and it can also prevent ubiquitination by blocking ubiquitin binding sites.
ANSWER: **SUMOylation** [or **SUMO** modification or **small ubiquitin-like modification**]

[10] In humans, SUMOylation controls transport between the cytosol and this organelle which contains chromatin.
ANSWER: **nucleus**
[10] Smt3p is the SUMO paralogue in this fungus, which was the first eukaryote to have its genome sequenced.
ANSWER: *Saccharomyces **cerevisiae*** [accept **yeast**]

10. Give the following about Philistines in the Old Testament. For 10 points each:
[10] Probably the most famous Philistine is this giant from Gath who was killed by a young David.
ANSWER: **Goliath** [accept *Golyath* or *Galyath*]
[10] In the First Book of Samuel, the Philistines capture this object normally stored in the Holy of Holies. Unsurprisingly, plagues of rats and disease ravage their land until they return it.
ANSWER: **Ark** of the **Covenant** [or **'Aron** ha-**Brit** or **Aron** ha-**'Edut**]
[10] In Chapter 21 of this Biblical book, Abimelech and Phicol are said to have "returned to the land of the Philistines." That reference to Philistines in this book is an anachronism often used to support the Documentary Hypothesis.
ANSWER: **Genesis** [or ***B'reishit***]

11. Clarence King failed to become the first person to climb this mountain because he accidentally climbed Mount Langley instead. For 10 points each:
[10] Name this mountain near the town of Lone Pine in California, the tallest peak in the contiguous United States.
ANSWER: Mount **Whitney**
[10] Mount Whitney can be found in this national park, which is also home to General Sherman.
ANSWER: **Sequoia** National Park
[10] The General Grant is sometimes considered to be the second-largest sequoia in the world, although in terms of volume, this sequoia is actually the second-largest, after the General Sherman.
ANSWER: the **President** tree

12. Name some mathematical tools that could be useful to an economist. For 10 points each:
[10] Calculating the marginal rate of substitution involves the implicit form of this action central to calculus, which measures the rate of change of a variable.
ANSWER: **differentiation** [accept **derivative** or equivalents]
[10] Shadow prices in optimization problems are represented by the value of one of these variables, denoted lambda, that are introduced in order to find a set of first order conditions for the problem.
ANSWER: **Lagrange multiplier**s [do not accept "Lagrangian"]
[10] This theorem holds that if an equation of x and y is well-behaved and the Jacobian is invertible in a neighborhood of some point, y can be written as a function of x. Topkis's theorem is an alternative to it in comparative statistics.
ANSWER: **implicit function** theorem

13. He wrote a novella about a doctor named Simão Bacamarte who runs the Green House. For 10 points each:
[10] Name this author of *The Alienist* and *Philosopher or Dog?*
ANSWER: Joaquim Maria **Machado** de Assis
[10] Joaquim Machado also penned this novel about Bento, who spends much of his life wondering whether his wife Capitu had an affair with his friend Escobar, eventually becoming so silent he earns the title nickname.
ANSWER: ***Dom Casmurro***
[10] Joaquim Machado hailed from this Portuguese-speaking South American country, whose other literary talents include Jorge Amado and Clarice Lispector.
ANSWER: **Brazil**

14. He once saved his own ass by having a vision of two dragons fighting below a castle. For 10 points each:
[10] Identify this sorcerer who became a close confidant to King Arthur.
ANSWER: **Merlin**
[10] When Arthur was old enough to claim his right to be king, Merlin led him to this unnamed weapon that is notably not the Lady of the Lake's Excalibur. Arthur's ability to obtain this weapon foretold his great destiny.
ANSWER: the **sword in the stone** [accept descriptive equivalents like the **sword trapped in stone**]
[10] Merlin disguised Uther Pendragon as Gorlois to seduce the wife of this woman who became the mother of King Arthur. Geoffrey of Monmouth states that her second child Anna, becomes the mother of Gawain.
ANSWER: **Ygraine** or **Igraine**

15. Frederick Barbarossa seized the relic of the Three Kings and gave it to its cathedral, which was begun in the 1200s and completed in 1880. For 10 points each:
[10] Name this city, which along Trier and Mainz, is one of three Archbishoprics of the Holy Roman Empire.
ANSWER: **Cologne** [accept **Köln**]
[10] Cologne was the major city of the Westphalian-Prussian portion of this political unit, a commercial consortium of guilds that was based out of Lubeck.
ANSWER: **Hanseatic League** or **Hansa**
[10] The conversion to Protestant of Gebhard, Truchsess von Waldberg, sparked the Cologne War, which is sometimes named after this job. This job has a name derived from an Anglo-Norman word for steward, and was largely responsible for managing the servants of a noble's estate.
ANSWER: **seneschal**

16. The amputee Paul Wittgenstein commissioned this composer's Piano Concerto for the Left Hand. For 10 points each:
[10] Identify this French composer who may be better known for his monothematic *Bolero*.
ANSWER: Maurice **Ravel**
[10] Ravel's longest work was the music for this ballet, which was choreographed by Michel Fokine and based on a story by the Greek writer Longus. He later adapted two suites from this ballet, whose "Lever-du-jour" section features some extremely virtuosic work on the flute.
ANSWER: *Daphnis et Chloé* or *Daphnis and Chloe*
[10] In his orchestrations, Ravel was fond of using this string instrument technique in which the player fully depresses the string with one finger of the left hand but only lightly touches it with another, thus creating an eerie, ethereal sound at a higher pitch than normal.
ANSWER: **artificial harmonic**s [prompt on "harmonics"]

17. The main characters of this play use the code word "Sollocks." For 10 points each:
[10] Name this comedy of manners about the chance encounter of ex-lovers Amanda Prynne and Elyot Chase, who have remarried and are on their honeymoons.
ANSWER: *Private Lives*
[10] *Private Lives* was written by this British comic playwright, who also wrote *Hay Fever* and *Present Laughter*.
ANSWER: Noël **Coward**
[10] This play by Noël Coward is about Charles Condomine, who is haunted by the ghost of his first wife Elvira after Madame Arcati conducts a seance.
ANSWER: *Blithe Spirit*

18. This character sends his underling Reed to a club Kenya in order to recruit another character, who eventually agrees when several men enter and try to kill him. For 10 points each:

[10] Name this character who attempts to sink Venice and assembles a group of characters which includes Mina Harker and Skinner.
ANSWER: The **Fantom** [or James **Moriarty** or "**M**"]
[10] The Fantom is the antagonist in this horrendous 2003 movie, which stars Sean Connery as the adventurer Allan Quatermain. It is based on a comic book series of Alan Moore.
ANSWER: The *League of Extraordinary Gentlemen*
[10] This member of the league betrays everyone else by collecting samples for use in the Fantom's formula and turning them over to the Fantom. Near the end of the movie he is impaled on a sword and forced to look at an old painting of himself, causing him to disintegrate and turn into a skeleton.
ANSWER: **Dorian** **Gray**

19. One crisis during this man's rule was touched off by the death of Joseph Rendjambé, one of his political opponents. For 10 points each:
[10] Name this ruler of Gabon for much of the later parts of the 20th century who held power through several questionable elections until his 2009 death.
ANSWER: Omar **Bongo**
[10] Gabon, like Senegal, was once a colony of this European country that, along with England, was one of the players in the Fashoda Incident.
ANSWER: **France**
[10] This French explorer sailed aboard the *Venus* on a voyage up the Gabon River. He was known for being a non-oppressive leader and champion of human rights while in charge of the French Congo, and his name now graces a city in the region.
ANSWER: Pierre Savorgnan de **Brazza**

20. Name some things about your favorite reaction, the Baeyer–Villiger reaction. For 10 points each:
[10] The Baeyer–Villiger reaction oxidizes ketones to these compounds. They are also created in reactions named for Steglich and cyclic ones are known as lactones.
ANSWER: **ester**s
[10] The first step of the Baeyer–Villiger oxidation forms this tetrahedral intermediate. This intermediates namesake also names a reaction similar to the Baeyer–Villiger oxidation in which a tertiary alcohol is oxidized to a ketone, and this intermediate has two free radical center.
ANSWER: **Criegee** intermediate [or **Criegee** biradical]
[10] Another reaction that forms a Criegee intermediate is a reaction that cleaves alkene double bonds with this compound. This compound can also break down polymers.
ANSWER: **ozone** [accept **ozonolysis**]

Extras

21. This diagram is shaped like two triangles and is so named because it classifies rocks based on four parameters. For 10 points each:
[10] Name this diagram which is used to classify igneous rocks.
ANSWER: **QAPF** diagram
[10] The "Q" in "QAPF" stands for this mineral, which consists of silica.
ANSWER: **quartz**
[10] The "A" in "QAPF" stands for the "alkali" variety of this class of minerals, which includes microcline and orthoclase.
ANSWER: **feldspar**s