

## Tossups

1. At one point in this opera, the music shifts from major to minor key after the title character is slapped by his wife. Its soprano starts doubling the wages of her new husband's household servants shortly after signing a marital agreement brought by the notary Carlino, causing her husband to angrily sing the aria "Son tradito." The overture to this opera, which begins with a melody played by a solo cello that is later picked up by the winds, samples the themes from two later arias entitled "So anch'io la virtu magica" and "Com'e gentil." In "Bella siccome un angelo" a character invents an imaginary sister who has recently finished at a convent school, named Sofronia. The title character, who disapproves of his nephew Ernesto's love for Norina, sings the duet "Cheti, cheti, immantinente" with his friend Dr. Malatesta. For 10 points, name this opera buffa by Gaetano Donizetti about an old Italian bachelor who seeks a young wife.
ANSWER: Don Pasquale
2. Historians who have written studies of this battle include Harold Hayden Nelson and Hans Goedicke. This battle's winning commander ignored his generals' advice to approach from either Zefti or Taanach, choosing instead to risk ambush by leading his army single file through a narrow pass. That ruler assumed the enemy would not expect him to make such an illogical decision and therefore took the direct route across the Ridge of Carmel from Aruna after holding a war council at Yehem. A primary source for this battle was written by Tjaneni, and the losing commander here escaped during a seven month siege that followed, leaving behind his allies of the Mitanni tribe, and almost 1000 chariots. This battle's events are inscribed on the walls of the temple of Amun-Ra at Karnak. For 10 points, name this victory for the pharaoh Thutmose III over the king of Kadesh, which is the earliest recorded battle in history.
ANSWER: Battle of Megiddo
3. It's not temperature, but this quantity has a linear relationship with the relative wavelength shift of a fiber Bragg grating. Tuning this quantity can greatly increase the spontaneous polarization and transition temperature of a ferroelectric thin film. This quantity's time derivative is the symmetric component of the gradient of the velocity field. This quantity's value is constrained by the Saint-Venant compatibility equations. This quantity is the independent variable of Hollomon's equation, in which it is raised to a namesake "hardening" exponent. A common device for measuring this quantity consists of a patterned strip of constantan alloy connected to a Wheatstone bridge, which gives this quantity as the relative change in resistance divided by the gauge factor. This quantity is localized when necking occurs, and it lies on the $x$-axis of a curve whose slope equals Young's modulus in the elastic region. For 10 points, name this tensor quantity that measures the local deformation of a body in response to stress.
ANSWER: strain tensor [prompt on "deformation"]
4. A terrible translation of this work, in which the word for "social class" was translated as "whale," was written by Reverend Charles Swan. A particularly lyrical passage in this novel addresses figures "springing from the waters and rising to the sky"; that "farewell to the mountains" describes the thoughts of a character in this novel crossing the Adda. A riot at the Bakery of the Crutches is blamed on a character in this novel who hides from the authorities by pretending to be a silk weaver named Antonio at his cousin Bartolo's mill. After seeing pilgrims on the road seeking out Cardinal Borromeo, a character in this novel repents for his sins. Doctor Azzeccagarbugli and Don Abbondio both attempt to abduct a woman in this novel to satisfy a bet by a wealthy nobleman that he can take her virginity, but The Unnamed changes his mind and brings about downfall of that villain. For 10 points, name this novel in which the wealthy Don Rodrigo schemes to separate Lorenzo and Lucia, written by Alessandro Manzoni.
ANSWER: The Betrothed [or I promessi sposi; or The Betrothed Lovers; or The Promise of Fidelity]
5. This text notes that a tree may be referred to as "seven-leaved" when it does not actually have seven leaves to explain the title of one of its sections. Another section of this text enumerates nine types of doubt that people may have concerning gains and losses. This text refutes the opinion of the Lokayatikas that religious ordinances should not be observed and argues that the title concept is worthy of scholarly discussion even though it is common to all creatures. This text recommends that Dharma be practiced mainly during old age, while Artha and the title concept should be practiced mainly during youth and middle age, and it classifies women as either "deer," "mares," or "elephants." This text written by Vatsyayana includes chapters titled "About Females Acting the Part of Males" and "Of the Embrace." For 10 points, identify this text named for the Hindu god of love, which notably contains a sex manual.
ANSWER: the Kama Sutra
6. Armor made by this character that was immune to steel and iron weapons was used successfully by her sons until an old man revealed that the armor had a weakness to stones. Those sons of this character were attempting to take revenge for the horse-trampling death of their sister, who was accused of having an affair with Randver. This character attempts to commit suicide by holding stones and jumping into the sea, but the waves carry her to the kingdom of Jonakr, who she marries. In one source, this mother of Hamdir, Sörli, and Svanhild is hacked up by Hildebrand, the mentor of Dietrich of Bern, after she decapitates Hagen. In another source, she takes revenge for her murdered family by killing her sons Erp and Eitil and feeding them to the murderer, her second husband Atli. In the Nibelungenlied, this character is known as Kriemhild. For 10 points, name this sister of Gunnar who marries Sigurd in the Volsunga saga.
ANSWER: Gudrun [or Kriemhild until it is read]
7. According to many scholars, this document's critique of common law was drawn from contemporary jurist Elisha Hurlbut, and it borrowed language from the minister Samuel May. Prior to approval of this document, the town supervisor Ansel Bascom read a speech he prepared with a student named Samuel Tillman, and Thomas M'Clintock read several passages from Blackstone's legal commentaries. Reportedly drafted on a table donated by Richard Hunt, the central portion of this document claims that "the prerogative of Jehovah himself" has been usurped, and lists several more injuries. Signed at the Wesleyan Methodist Chapel, this document claims that a certain group becomes "civilly dead" in the eyes of the law upon marriage. It was signed in 1848 by a group including Martha Wright, James Mott, Frederick Douglass and its primary author, Elizabeth Cady Stanton. For 10 points, identify this document presented at the Seneca Falls Convention.
ANSWER: Declaration of Sentiments and Resolutions [or Declaration of Rights and Sentiments]
8. These compounds can be produced from alkynes and nitrones using a copper catalyst in the Kinugasa reaction. One of these compounds reacts with an alcohol in the tail addition step of the Nicolau total synthesis of Taxol. These compounds can be produced from ketenes in the Staudinger synthesis, and one example of them was first synthesized by John C. Sheehan. A class of enzymes which breaks down one type of these compounds can be inhibited by clavulanate and is exemplified by NDM-1, which is named after New Delhi. These compounds can be synthesized from oximes via an acid-catalyzed Beckmann rearrangement or from hydrazoic acid and a cyclic ketone via a Schmidt reaction. Drugs derived from these compounds include carbapenems and cephalosporins, which work by inhibiting peptidoglycan synthesis. For 10 points, identify these cyclic amides whose "beta" variety names a class of antibiotics that includes penicillin.
ANSWER: lactams [or beta-lactams; or gamma-lactams; prompt on "cyclic amides"]
9. This character was the "first stranger to whom" his friend's daughter "held out her chubby arms," and that friend's son requests, "Kiss [this character] for me!" while dying. This character's superior is described as a "fellow of delicacy" in contrast to this "fellow of no delicacy," who tells his love interest that she has "been the last dream of my soul." In this man's first appearance, he spends most of a trial staring lazily up at the courtroom ceiling before he tosses a piece of paper to his boss, Mr. Stryker. In a conversation analogized to a game of cards, this character, who is often compared to a jackal, plays his "Ace" by threatening to denounce the spy John Barsad. People remark that this man's face was the peacefullest ever beheld after this man's death, which occurs shortly after he kisses a seamstress and thinks about how he has facilitated the happy life of Lucie Manette and Charles Darnay. For 10 points, name this man whose last thought is "It is a far, far better rest that I go to than I have ever known," before he is guillotined in A Tale of Two Cities.
ANSWER: Sydney Carton [accept either underlined portion]
10. In a letter, this work's creator insisted that the landscape and the central action of this painting "existed only in the imagination," which is why both are depicted unnaturally and disproportionately. The artist's close friend, Emile Bernard, claimed that the idea for this painting was stolen from one of his own earlier works, which depicts women in a meadow. Inspired by Vincent van Gogh's copy of Hiroshige's Plum Trees, the artist chose to insert a large diagonal tree trunk that juts across much of this work's action. This painting, which was made while its artist was in Pont-Aven, represents agrarian life with a cow who is moving in the red landscape. It depicts a group of religious devotees wearing black clothing and white bonnets contemplating a story from Genesis. For 10 points, name this painting which depicts Breton women in the foreground and Jacob wrestling with the Angel in the background, and was created by Paul Gauguin.
ANSWER: Vision after the Sermon [or Jacob Wrestling with the Angel until "Jacob" is read]
11. A book by this author has eight sections and chapters such as "The Law of Indifference" and "Tendency of Profits to a Minimum." That book by him cites Airy's "Theory of the Tides" for the notion that just because accuracy in a field of study may be limited, it does not affect the fundamental character of the science as mathematical. That 1871 work by this thinker uses the "lowest rank of feelings" to make an argument refuting the "labor theory of value." Another of his books argues that an increase in the efficiency of energy production actually causes an increase, and not a decrease, in consumption. An early work by this thinker suggests that business cycles were linked to sunspots. A work by him on diminishing marginal utility was written six years after his The Coal Question, which introduced his namesake paradox. For 10 points, name this author of The Theory of Political Economy, an English economist who spearheaded the marginal revolution.
ANSWER: William Stanley Jevons
12. Fibrillin-1 contains a type of epidermal growth factor-like domain which binds to this element. Low levels of this element can be indicated by tightening a blood pressure cuff on the brachial artery, which leads to a carpal spasm called the "hand of the obstetrician." Levels of this element in cells can be measured using aequorin. This element regulates the binding of phospholipids to annexins. This element can become deficient in the blood of patients with many blood transfusions since it complexes to citrate in serum. Along with diacylglycerol, this element activates protein kinase C. Parvalbumin contains three helix-loop-helix domains which bind to this element. Levels of this element in serum can be reduced by a hormone produced by the parafollicular cells of the thyroid gland or raised by parathyroid hormone. This element binds to troponin, which allows myosin to bind to actin, causing the sarcomere to contract. For 10 points, name this element which regulates muscle contraction and supports bone health.
ANSWER: calcium [or Ca ]
13. This event is the subject of 75 sculptures of nude women by Suse Lowenstein, as well as the documentary film The Maltese Double Cross. In 2007, Ulrich Lumpert admitted to lying at the trial that followed this event, where he and Edwin Bollier were asked to identify a Mebo MST-13 timer. Syracuse University gives Remembrance Scholarships to 35 students each year to commemorate this event. Prior to this event, the US embassy in Helsinki received an anonymous phone call warning. The trial that followed this event hinged on the testimony of Maltese clothes shop owner Tony Gauci and ended with the conviction of Abdelbaset al-Megrahi, who was released from jail in 2009 to die of prostate cancer in his home country of Libya. For 10 points, identify this December 21, 1988 terrorist attack that killed all 259 people on board Pan Am Flight 103 and 11 residents of the namesake Scottish town where the plane crashed.
ANSWER: Lockerbie bombing [or Lockerbie air disaster; or Pan Am Flight 103 until it is read]
14. The voice of one of this poet's speakers "falls dead a foot from [his] own lips" as he cries out to a vessel. The speaker of that poem looks "far out into the pregnant night," where he can "hear a solemn booming gun," and the poem begins by noting how "out in the sky the dark clouds are massing" and ends each stanza with the repeated words, "passing, passing." The line "G'way an' quit dat noise, Miss Lucy" from this poet's "When Malindy Sings" exemplifies his use of dialect in poems he classified as "minors" to contrast with the normal-language "majors" in one collection. Another poem by this man invites the world to "dream otherwise" while the speakers resort to an object that "hides our cheeks and shades our eyes" and "grins and lies." For 10 points, name this African American poet of "Ships That Pass in the Night," "We Wear the Mask" and "Sympathy," which claims, "I know why the caged bird sings."
ANSWER: Paul Laurence Dunbar
15. This piece was premiered using soloist Felix Salmond, though the performance was met with scathing reviews after conductor Albert Coates wasted rehearsal time at the composer's expense. This work's adagio third movement concludes with a lyrical melody in B-flat major before transitioning into the more imposing B-flat minor opening of the finale without pause. This piece's adagio-moderato first movement opens with a recitative on the solo instrument followed immediately by a short cadenza. The six-bar main theme of this piece is then first carried by the violas in $9 / 8$ time before it is echoed by the soloist. This piece was first recorded electronically with soloist Beatrice Harrison, though its most famous performance was conducted by John Barbirolli and recorded by a 20 -year old female soloist. For 10 points, identify this piece popularized by Jacqueline du Pre, an E minor composition for orchestra and a string instrument written by the composer of the Enigma Variations.
ANSWER: Edward Elgar's Cello Concerto in E Minor [or Cello Concerto in E minor until "E minor" is read and prompt thereafter; prompt on partial answers]
16. The academic study of these texts is the subject of an essay by Jean Jacques Waardenburg that seeks to determine whether there is a standard methodology for writing them. One of these texts states that distinct black and white threads represent the darkness of the night and the lightness of the day, while another notes that Jesus cannot be held accountable for being deified after his death and therefore is not part of the "firewood of hell" made from inanimate objects of worship. These texts are called diraya when they are based on ijtibad, or independent reasoning, and they are called riwaya when they're based on sources like the tabi'un and sababab. Authors of these texts, exemplified by al-Zamakhshari and al-Tabari, are known as mufassirun. To be considered authoritative, those authors of these texts must have mastered fifteen fields of study, among which are fiqh and classical Arabic. These works include taw'il and tafsir. For 10 points, identify these texts that explain the meaning of passages from the holy book of Islam.
ANSWER: commentaries on the Qur'an [or interpretations of the Qur'an; or Qur'anic exegeses; or word forms; or tafsir until it is read; prompt on partial answers]
17. A model of this process includes an ad hoc "spike" term that Drake and Calantoni added to the BBB formula. Another model of this process uses an equation with empirical constants determined by Meyer-Peter and Müller to calculate a dimensionless function defined by Hans Albert Einstein. The Rouse number determines the manner in which this process occurs. The Exner equation quantifies the conservation of mass during this process. The threshold at which this process begins can be found by plotting the explicit particle Reynolds number versus the boundary shear stress on a Shields diagram. Saltation is a form of this process in which particles are intermittently removed from the bed load. This process begins with entrainment, ends with settling, and is followed by deposition. For 10 points, name this process in which material that has been created through weathering or erosion travels to a new location.
ANSWER: sediment transportation [or word forms; prompt on answers that suggest "rocks are moving" or "rocks are travelling"; do NOT accept or prompt on "slope movement", "mass wasting", or "mass movement"]
18. This book includes an analysis of Robert Fludd's view that there is an evil component in God in a chapter about conflicts in medieval thought. Its chapter on sufficient reason argues that Leibniz's theory of monads illustrates his belief that God is not responsible for creation. This 1936 book is a collection of eleven of its author's William James lectures and draws on its author's earlier Primitivism and Related Ideas in Antiquity. This study argues that Aristotle was the first to articulate the belief that intermediate things between two things will always exist, which it calls the "Principle of Continuity." That principle, along with the idea that all things that are not self-contradictions will always exist, which is called the "Principle of Plenitude," is used to examine the Alexander Pope inspired title concept. For 10 points, name this analysis of the hierarchical principle throughout intellectual history, authored by Arthur Lovejoy.

## ANSWER: The Great Chain of Being

19. Three brothers who ruled this polity had the awesome nicknames "Achilles," "Irontooth," and "the Alchemist." The Treaty of Eltville ended a civil war in this polity that pitted the pretender "False Waldemar" against Louis I of the Wittelsbach dynasty. This polity's founder won a succession war after the death of the Hevelli prince Pribislav-Henry and made a red eagle its heraldic symbol. That member of the House of Ascania created this polity out of the Northern March and was named Albert the Bear. This polity gained control of Ravensberg and Cleves-Mark in the Treaty of Xanten under a ruler whose daughter Maria Eleonora married Gustavus Adolphus. That margrave of this polity, John Sigismund, was the grandfather of Frederick William the Great Elector. 10 points, name this polity in present-day northeastern Germany that formed a personal union with the Duchy of Prussia during the 17th century.
ANSWER: Electorate of Brandenburg [or March of Brandenburg; or Margraviate of Brandenburg; or Brandenburg-Prussia; do NOT accept or prompt on "Prussia" or "Province of Brandenburg"]
20. One novel by this author abruptly ends with a colon as the philosophy teacher Ulisses is about to speak. In another novel by this author, a man shows off his strength to a woman by lifting her over his head with one hand, but then drops her into the mud. That novel by this author centers on a woman who lives on a diet of hot dogs and Coca-Cola and dies just after visiting the fortune teller Madame Carlota when she is hit by a yellow Mercedes. In a short story by this author, the explorer Marcel Pretre writes a newspaper article about a pregnant Likouala woman who is forty-five centimeters tall. This author of "The Smallest Woman in the World" wrote a novel whose title character has an existential crisis in the abandoned room of her maid Janair after slamming the wardrobe door on a cockroach, which she then eats. For 10 points, name this Brazilian author of The Hour of the Star and The Passion According to G.H.
ANSWER: Clarice Lispector

## Tiebreaker

21. This man wrote his doctoral dissertation on the Colorado Coalfield War and chaired the committee that produced the report Dietary Goals for the United States. He also chaired a commission that established the modern process by which his party selects delegates for national conventions, named for him and Donald Fraser. This man declared "this chamber reeks of blood" in a Senate speech supporting an amendment to end American military involvement in Vietnam that he co-sponsored with Mark Hatfield. He was attacked for supporting "amnesty, abortion, and acid" during a campaign in which he claimed to be " 1,000 percent behind" former electroshock therapy recipient Thomas Eagleton, but quickly dropped Eagleton as running mate in favor of Sargent Shriver. For 10 points, name this Democrat from South Dakota who lost every state but Massachusetts in the presidential election of 1972.
ANSWER: George Stanley McGovern

## Bonuses

1. These works often include historiated initials, which are paintings contained within large letters. For 10 points each:
[10] Name these medieval artworks whose name reflects the fact that their text is accompanied by lavish illustrations, such as in books of hours.
ANSWER: illuminated manuscripts [prompt on "manuscripts"]
[10] Saint Eadfrith illustrated this manuscript with a geometric and zoomorphic ornamentation style. Produced at a namesake monastery, this gospel book is a leading exemplar of Hiberno-Saxon art along with the Book of Kells.
ANSWER: Lindisfarne Gospels
[10] Producers of illuminated manuscripts sometimes copied over previous texts to conserve parchment, thereby creating this type of work. Scientists have digitally imaged one of these works featuring treatises by Archimedes.
ANSWER: palimpsests
2. An immersion is a differentiable map between two of these structures whose derivative is injective everywhere. For 10 points each:
[10] Name these structures, whose projections into Euclidean space are called charts. These topological spaces locally resemble Euclidean space at all points, and differentiable ones are smooth enough for calculus to be done with them.
ANSWER: manifolds
[10] Sard's lemma states that the set of critical points from a manifold or function with this property to another manifold or function with this property is the null set. These functions and these manifolds are infinitely differentiable.
ANSWER: smooth [or word forms]
[10] For an n dimensional Riemannian manifold, this operator converts alternating k -forms to n minus k forms and is used to define the co-differential. Along with the exterior derivative it is used to define the gradient and curl.
ANSWER: Hodge star
3. This god lives in a mountain cave in Cimmeria, and his servants include Aergia and the Oneiroi, who some sources say are his sons. For 10 points each:
[10] Name this Greek god, a brother of Thanatos who obtained Pasithea as his wife in exchange for helping Hera by using his powers to make Zeus fall asleep.
ANSWER: Hypnos [do NOT accept "Somnus"]
[10] Hypnos and Thanatos returned the body of this man, an ally of the Trojans who fought alongside his cousin Glaucus, to his homeland of Lycia after Patroclus killed him.

## ANSWER: Sarpedon

[10] This member of the Oneiroi is the personification of nightmares who appears in dreams as various monsters. His two brothers are Morpheus and Phantasos.
ANSWER: Phobetor [or Icelus]
4. Answer the following about some plays that, like Equus, were nominated for the 1975 Tony Award for Best Play, but unlike Equus, didn't win, for 10 points each.
[10] This play opens with a mute scene in which its two main characters shovel dirt into piles at each others' feet. Later, those two characters spend a lot of time rehearsing for a performance of Sophocles's Antigone.
ANSWER: The Island
[10] In this play by the author of The Island, the title character sends his wife a letter and photo taken in Styles's studio after assuming the identity of one Robert Zwelinzima to get a work-seeker's permit.
ANSWER: Sizwe Bansi is Dead [or Sizwe Banzi is Dead]
[10] John Kani and Winston Tshona were co-winners of the Best Leading Actor Tony for their work in The Island and Sizwe Bansi is Dead, on which they collaborated with this South African author of Master Harold and the Boys.
ANSWER: Athol Fugard [or Athol Lanigan Fugard]
5. The Malaysian government pays about 1,700 dollars each year to the heirs of this state's rulers. For 10 points each:
[10] Name this sultanate founded by Sharif ul-Hashim that lasted from 1405 to 1915. Moro pirates operating in this sultanate harassed the Spanish for centuries, prompting operations like the Balanguingui Expedition.
ANSWER: Sultanate of Sulu [or Sulu Sultanate]
[10] The Sultanate of Sulu, like other empires in Southeast Asia such as Srivijaya and Majapahit, was this kind of state. This term refers to a largely maritime state that has little inland territory but dominates a particular sea region.
ANSWER: thalassocracy [or thalassocratic state]
[10] With the decline of the slave trade in the 19th century, the Sulu Sultanate switched its focus to this lucrative industry. The Gulf of Mannar was a historical center of this industry, which required workers to freedive for oysters.
ANSWER: pearl diving [or pearl fishing; or obvious equivalents that mentions pearls]
6. For 10 points each, answer the following about modal arguments in refuting physicalism.
[10] This early modern philosopher gives an argument against physicalism in the sixth of his Meditations, since he can imagine his mind existing without a body, so it is possible to exist without a body, and thus his mind is non-physical.
ANSWER: Rene Descartes
[10] David Chalmers more convincingly argues against physicalism by positing the existence of these entities, which are physically identical to conscious beings, but lack consciousness.
ANSWER: philosophical zombies
[10] In the last of this set of lectures, its author gives an intricate modal argument against physicalism, since it is entirely possible to imagine a mental state without its corresponding physical state using the example of pain and C-fiber firing.

## ANSWER: Naming and Necessity

7. Phospholipase A2 cleaves a membrane glycerophospholipid to generate this molecule, which is often synthesized from dietary linoleic acid in a complex process involving delta- 5 and delta- 6 desaturases. For 10 points each:
[10] Name this compound that is the precursor to the eicosanoids.
ANSWER: arachidonic acid [or arachidonate; also accept AA or ARA]
[10] Bodybuilders love arachidonic acid because its namesake cascade promotes this immune process, for which $t$ is signaled by cytokines like TNF-alpha. NSAIDs help inhibit this process, in which tissues swell and become warmer.
ANSWER: inflammation [or the inflammatory response]
[10] NSAIDs work by inhibiting one of these enzymes, which adds two equivalents of a namesake molecule to arachidonic acid to synthesize prostanoids.
ANSWER: cyclooxygenases [or COX-1; or COX-2; or prostaglandin-endoperoxide synthases; or PTGSs, prompt on "oxygenases"]
8. This church's founder, Aimee McPherson, may have faked her own kidnapping to get publicity. For 10 points each:
[10] Identify this Pentecostal church whose numerical name comes from its belief in Christ's ministry as savior, baptizer, healer, and soon-coming king.
ANSWER: Foursquare Church [or International Church of the Foursquare Gospel]
[10] The revival named for this street in Los Angeles is often cited as the beginning of the Pentecostal movement. That revival was led by William Seymour starting in 1906 at the Apostolic Faith Gospel Mission.
ANSWER: Azusa Street Revival
[10] The early history of Pentecostalism is marked by a split over this doctrine which says that sanctification occurs at the time of conversion. This doctrine developed by William Durham is opposed to the Wesleyan idea of Christian perfection.
ANSWER: Finished Work
9. The servant Jennet says of this character's wanderlust, "[She] was always like a crazed body of moonlit nights; there was never any keeping her within the four walls of a house. For 10 points each:
[10] Identify this woman, whose virtues are compared to that of the Native American Magawisca. She ends up with Everell Fletcher at the end of an early American novel by Catherine Maria Sedgwick.
ANSWER: Hope Leslie [accept either underlined portion]
[10] Hope Leslie is set in the colony that became this modern day state. Captivity narrative author Mary Rowlandson and Magnalia Christi Americana author Cotton Mather both lived in the colony that became this modern state.

## ANSWER: Massachusetts

[10] Hope Leslie is often considered an example of "domestic fiction," which itself is a subgenre of this literature in which feelings replaced events as the crux of a novel. Little Women is often classified as one of these novels.
ANSWER: sentimental novel
10. This school of historiography generally saw Reconstruction as a failed era of American history, and included men like Walter Fleming and J.G. Hamilton. For 10 points each:
[10] Named for a historian at Columbia University who began teaching in the late 20th century, this school of students often wrote about the injuries inflicted upon the South in the wake of the Civil War.
ANSWER: Dunning School of historiography [or the school of William Archibald Dunning]
[10] The Dunning School helped to popularize words like scalawag and this term, which describes northern Yankees who moved south after the Civil War and settled there, sometimes by purchasing plantations on the cheap.
ANSWER: carpetbaggers
[10] This historian, who has been at Columbia since 1982, is a fierce critic of the Dunning School. His recent books include the Pulitzer-winning The Fiery Trial: Abraham Lincoln and American Slavery, and Gateway to Freedom: The Hidden History of the Underground Railroad.
ANSWER: Eric Foner
11. The sculptor John Flaxman worked in this artist's workshop and his colleague Thomas Bentley, with whom this man created the George Stubbs-inspired Horse Frightened by a Lion. For 10 points each:
[10] Name this English artist known primarily for his use of barium sulphate for the development of his jasperware pottery. Outside of pottery, he may be most famous for his abolitionist medallion depicting a slave and the caption "Am I Not a Man and a Brother?"
ANSWER: Josiah Wedgwood
[10] Wedgwood's jasperware pottery bears a light shade of this color, which is also common in porcelain that uses cobalt oxide to render this color. Many Chinese pottery pieces are white and this color.
ANSWER: blue
[10] Wedgwood was greatly influenced by and created a replica of this Roman artifact, a cameo glass vase with depictions of possibly mythological or historical figures resting under trees. It is named for Duchess Margaret Bentinck, whose son loaned it to the British Museum.
ANSWER: Portland Vase
12. In December 2014, security chief Zhou Yongkang lost a power struggle and was expelled from this organization by the Central Committee for Discipline Inspection, signaling a turn away from conservatism. For 10 points each:
[10] Name this political party, in which the CCDI recently led an anti-corruption purge against "tigers" and "flies" supported by its current General Secretary, Xi Jinping.
ANSWER: CPC [or CCP; or Communist Party of China; or Chinese Communist Party; or Zhongguo Gongchandang]
[10] Xi's centralization of power and his movement away from the "collective leadership" of Hu Jintao justified the application of this informal title that refers to the true holder of power within the CCP. This term was first applied to Deng Xiaoping, who led China without holding the title of President or General Secretary.
ANSWER: paramount leader [or highest leader of the party and the state; or dang he guojia zuigao lingdaoren]
[10] Xi has created several new instances of these ad hoc bodies, such as one for "Comprehensively Deepening Reforms." These bodies bring together party experts and technocrats to formulate and find ideological justifications for policy directions. They generate fangzhen, or general principles, rather than zhengce, or concrete policies.
ANSWER: leading groups [or leading small groups; or Central Leading Groups; or lingdao xiaozu]
13. This linguist introduced a namesake cycle that explains how the expression of negation has evolved over time in languages in Negation in English and Other Languages. For 10 points each:
[10] Identify this pioneering Danish linguist who authored The Philosophy of Grammar and specialized in the study of English grammar.
ANSWER: Jens Otto Jespersen
[10] Otto Jespersen theorized and coined the name for this process describing a major change in pronunciation from Middle English to Modern English. During this process, two of the namesake sounds became a diphthong.

## ANSWER: The Great Vowel Shift

[10] Jespersen was a proponent of this theory which claims that there is an inherent relationship between an audible component and meaning. Saussure opposed this theory by arguing those components have no inherent meaning.
ANSWER: sound symbolism [or phonosemantics; or phonesthesia]
14. In the Treaty of Aix-la-Chappelle, Britain returned this city to France in exchange for Madras. For 10 points each:
[10] Name this city on Cape Breton Island that Duchambon surrendered to New England colonists after a forty-seven day siege in 1745. The leader of the winning side, William Pepperell, became the first American baronet.
ANSWER: Louisbourg
[10] That siege of Louisbourg was the pivotal battle of King George's War, the North American phase of this global conflict. Its other theaters included the War of Jenkin's Ear in the Caribbean and the first and second Silesian Wars.
ANSWER: War of Austrian Succession
[10] This Catholic priest assisted the French forces during King George's War by organizing Acadian and Mi'kmaq militias. A guerilla war named for this Father pitted his forces against British settlers beginning in 1749 , and was sparked by the founding of Halifax.
ANSWER: Father Le Loutre [or Abbé Jean-Louis Le Loutre]
15. The multipath term in this equation is independent of the flow velocity. For 10 points each:
[10] Name this equation, which describes band broadening by expressing the height equivalent of a theoretical plate as the sum of eddy-diffusion, longitudinal diffusion, and mass transfer terms.
ANSWER: van Deemter equation
[10] The van Deemter equation is used for analysis of the "column" form of this technique, in which a mixture is separated by passing a mobile phase through a stationary phase.
ANSWER: chromatography
[10] The general elution problem in gas chromatography can be solved by "programming" this quantity.
ANSWER: temperature
16. This poem opens, "What hope of once more meeting is there now in the still-closed blossoms of this day?" and it was supposedly written after its author's proposal to Ulrike von Levetzow was declined. For 10 points each:
[10] Name this poem that laments how the immortals "urged me to those lips, with rapture crowned, deserted me, and hurled me to the ground."
ANSWER: the "Marienbad Elegy" [or the "Elegy" from Trilogy of Passion; prompt on "Elegy"]
[10] In this poem by the author of the "Marienbad Elegy", a boy being carried on horseback by his father claims to be seeing and hearing things that his father can't sense; on their arrival at home, the boy is dead, presumably killed by the title otherworldly figure.
ANSWER: "Der Erlkönig" [or "The Elf-King"; or "The Erl-King"; or "The Alder-King"]
[10] The "Marienbad Elegy" and "Der Erlkönig" were written by this German poet of the West-Eastern Divan, who is more famous for writing The Sorrows of Young Werther.
ANSWER: Johann Wolfgang von Goethe
17. Armando Diaz followed up his success at the Piave River with victory at this battle in late 1918. For 10 points each:
[10] Name this battle fought exactly one year after Caporetto, which led directly to the Armistice of Villa Giusti. This battle marked the end of World War One on the Italian front.
ANSWER: Battle of Vittorio Veneto
[10] The Battle of Vittorio Veneto spurred the collapse of this ethnically-diverse empire ruled by a Dual Monarchy, which was thus pushed out of Italy.
ANSWER: Austria-Hungary [or Austro-Hungarian Empire]
[10] The Battle of Caporetto is alternately named for being the twelfth battle of the Italian Front wars to be fought on this river, known as the "Emerald Beauty" for its frothy green water.
ANSWER: Isonzo River [or the Soca; or Isontius; or Aestontius; or Sontig; or Lusinc; or Sota]
18. This composer created the motet, "Ave maria... virgo serena," and he dedicated his Nymphes des Bois to the memory of his teacher Johannes Ockeghem. For 10 points each:
[10] Identify this Renaissance composer, the central member of the Franco-Flemish school. He wrote the Missa Hercules Dux Ferrariae for his patron Ercole I and composed a pair of masses based on the tune L'homme arme.
ANSWER: Josquin des Prez [or Josquin Lebloitte; or Josquinus Pratensis; or Jodocus a Prato]
[10] This Josquin motet was dedicated to Savonarola and is composed in the Phrygian mode. The title is a Biblical quote that figures heavily in Savonarola's Infelix ego.
ANSWER: Miserere mei Deus
[10] Another famous Miserere was composed for the Tenebrae service at the Sistine Chapel by this Italian composer, then later illegally transcribed from memory by Mozart. This member of the Roman school wrote one of the earliest string quartets.
ANSWER: Gregorio Allegri
19. Like the Heisenberg model, the Hamiltonian for this model equals minus an interaction constant times the sum over all nearest neighbors I and J of the spin of I times the spin of J minus the external field times the sum of all of the spins. For 10 points each:
[10] Name this model from statistical mechanics which considers a lattice of interacting spins. In two dimensions, this model predicts the existence of a phase transition.
ANSWER: Ising model
[10] When the Ising model is analyzed using this type of theory,the Hamiltonian is simplified by considering one noninteracting spin in an external field which represents the interactions due to the other spins.
ANSWER: mean field theory [or mean field approximation]
[10] The Ising model is often used to analyze this phenomenon, in which a material's electron spins align to produce a permanent magnetization when it is below the Curie point.
ANSWER: ferromagnetism
20. This man's daughters debate whether he should retire to Crabtree Parva after widespread criticism by The Jupiter, while John Bold accuses this man of drawing an unfairly large salary, and only withdraws a lawsuit against him after falling in love with his daughter Eleanor. For 10 points each:
[10] Name this precentor of Barchester Cathedral whose role at Hiram's Hospital titles the novel The Warden.
ANSWER: Septimus Harding [accept either underlined portion]
[10] The Warden is the first novel in the "Chronicles of Barsetshire", a series by this author of Is He Popenjoy? who also wrote the Palliser novels.
ANSWER: Anthony Trollope
[10] Septimus Harding's older daughter Susan marries Archdeacon Grantly, who inBarchester Towers leads the "High Church" faction against this unpopular bishop of Barchester and his wife Olivia.
ANSWER: Bishop Thomas Proudie

