

1. The introduction of new economic modeling into this practice earned a Nobel prize for Robert Fogel. Its integration with literary theory is advocated by Roger Chartier, who currently leads a school of this practice known for introducing the concept of "longue duree." Lucien Febvre and Fernand Braudel once led that "Annales" school of this discipline, practiced by men like (\*) Manetho. Machiavelli wrote a set of ten discourses on an early work in this field, the *Ab Urbe Condita*. A major work in this field contains the Melian dialogue and relates a famous funeral oration given by the author's ruler, Pericles. Livy and Thucydides practiced, for 10 points, what discipline, whose "father" is considered to be Herodotus, concerned with the study of past events?

ANSWER: History [accept equivalents/word forms; accept Historiography]

<Ray>

2. A bass in this opera sings the patter song "A un dottor della mia sorte" to a woman who had earlier schemed to trick him in the duet "Dunque io son." For many years, prima donnas sang their favorite arias during this opera's "Lesson Scene." Its second scene begins with its lead soprano singing "Una Voce Poco Fa" to express her desire to meet (\*) Lindoro. In this opera's final scene, Count Almaviva succeeds in marrying Doctor Bartolo's ward Rosina, with the help of the title character, Figaro. First premiered in 1816, for 10 points, name this comic opera by Rossini set in the title Spanish city.

ANSWER: *The Barber of Seville* [or *Il barbiere di Siviglia*]

<Magin>

3. In one scene in this novel, the "Original Seven" disguise themselves as date merchants and steal birthday gifts from a convoy. One character in this work is nicknamed "Iron Ox" but is more popularly known as "The Black Whirlwind" for his twin axes. Another character in this work drunkenly punches a tiger to death; that character reappears in the later novel *Plum in the* (\*) *Golden Vase*. Its central characters vow to "deliver justice on Heaven's behalf" and defeat the army five times at Liangshan, having originally banded together to fight corrupt officials like Gao Qiu. This novel, set during the Song Dynasty, originally centered on thirty-six warriors led by Song Jiang. For 10 points, name this novel by Shi Nai'an about a group of 108 bandits.

ANSWER: Outlaws of the Marsh [or *The Water Margin*; or *Zhongyi Shuihu Zhuan*; or *The Men of the Marshes*; or *All Men Are Brothers*; or *Jianghu Haoke Zhuan*; or *Suikoden*; accept *The Marshes of Mount Liang* before "Liangshan" is read and prompt on it thereafter]

<Carson>

4. In low-level languages, these data structures are often described by dopes, which can be used to create new data structures of this type in a process called slicing. Examples of these objects that have low cache misses are named for Douglas Haskins' sister Judy. The stride of these data structures gives the distance in memory between successive entries. A map or dictionary is sometimes referred to as an (\*) associative form of this data structure, as elements are indexed by keys rather than a zero-based integer. These objects have big-O of 1 lookup and storage time. Two-dimensional ones can be represented by a matrix. A loop often iterates through them. For 10 points, name these simple data structures often declared using square brackets.

ANSWER: array

<Mukherjee>

5. This man's life is once saved when he is told not to put on a poisoned mantle inlaid with precious stones. In a chronicle by Nennius, the capstone of twelve of his victories came at the battle of Mons Badonicus. The "Interpreter of Languages" and Mewr are two of six warriors sent by this man to aid Culwch in his quest for Olwen. This man's kitchens are kept by his (\*) seneschal Kay. This man's father disguised himself as his enemy Gorlois to seduce Ygraine. Geoffrey of Monmouth popularized the stories of this man, who returned to his kingdom after hearing that his wife has married Mordred. He was given an object by the Lady of the Lake after having pulled a sword from stone. For 10 points, name this son of Uther Pendragon, the wielder of Excalibur and king of Camelot.

ANSWER: King Arthur Pendragon [prompt on "Pendragon"]

<Gupta>

6. A successor to this organization contained several *gloriosi* and was headed by an officer named a *proedros*. Members of this organization wore a purple stripe and special shoes. This organization could not meet more than a mile outside of the *pomerium*. Events that transpired in this organization were published in the *acta* and stored in the *aerarium*. During times of emergency, this organization could issue a "final act." Its first meeting of the year took place at the Temple of (\*) Jupiter Capitolinus. Quaestors were automatically appointed to it, and earlier reforms transferred election to this body from consuls to censors. For 10 points, name this legislative body of the Roman Republic.

ANSWER: Roman Senate [or Senatus]

<Bentley>

7. The speaker of one of his poems notes "the tree of man was never quiet" and describes a "Roman and his trouble" who are now "ashes under Uricon". One poem by this author of "On Wenlock Edge" asks "why was Burton built on Trent?" and asserts "Malt does more than Milton can to justify God's ways to man". In another of his poems, a "wise man" tells the speaker to "give crowns and pounds and guineas, but not your heart away". This author of (\*) "Terence, This is Stupid Stuff" and "When I was one-and-twenty" wrote a poem addressed to a "townsman of a stiller town" who will not become a "runner whom renown outran", as he is being brought home in a coffin. For 10 points, name this English author of "To An Athlete Dying Young", a poem from his collection *A Shropshire Lad*.

ANSWER: Alfred Edward Housman

<Bentley>

8. In a bipolar junction transistor, the length scale of this process limits the width of the base, and it occurs in both directions across the junction. A coefficient important to describing this process takes into account tortuosity, porosity, and hindrance. A law describing this process states that its time increases with the square of the distance travelled, and another law describing it states that its flux is proportional to the negative gradient of the (\*) chemical potential. Those two laws are named for Fick. When this process occurs across a semipermeable membrane with water, it is called osmosis. For 10 points, identify this process by which particles move from areas of high concentration to low concentration.

ANSWER: diffusion [generously anti-prompt on "osmosis" until mention]

<Mukherjee>

9. **This man ordered an equestrian statue of himself to be changed to depict Marcus Curtius Hurling Himself into the Flames. He ordered the creation of the Grand Trianon. A portrait of this man is put away in *The Shop Sign of Gersaint* by Jean-Antoine Watteau. In one portrait, he wears an elaborate blue and gold cape with a sword at his side, as well as white stockings and red high heels; that portrait was painted by Hyacinthe (\*) Rigaud. His best known artistic commission included the Basin of Neptune reflecting pool and was built by men like Louis Le Vau and Jules Hardouin Mansart. That same building commissioned by this man contains the Hall of Mirrors. For 10 points, name this French monarch who dramatically expanded the Palace of Versailles.**

ANSWER: Louis XIV [or Louis the Great or Louis le Grand; prompt on "The Sun King"]

<Bentley>

10. **Important locations on this battlefield include Brawner's Farm, Matthews Hill, and Henry House Hill, and it was bisected by the Warrenton Turnpike. It is where famous letter-writer Sullivan Ballou was mortally wounded. John Pope's retreat from this battlefield was quite orderly, thanks in part to a lack of ammo on the opposing side. An earlier retreat from this battlefield by Irvin (\*) McDowell was much more chaotic, and was complicated by the presence of panicked civilian onlookers. This battlefield is where a commander from Virginia received his famous nickname, when Confederate General Barnard Bee noted that he stood "like a stone wall." For 10 points, identify this battlefield, the site of two separate battles during the Civil War.**

ANSWER: Battle of Bull Run [or Battle of Manassas; or First or Second Battle of Bull Run; or First or Second Battle of Manassas]

<Thompson>

11. **One of these organizations got its name from the radio code used by its founder, Z1. One organization of this type called the Knights Templar agreed to a truce during a recent visit by Pope Benedict XVI. The rapid proliferation of these groups led to the creation of a government agency called the SEIDO. One of these groups is believed to be close to its end after the arrest of Benjamin (\*) Arellano-Félix. The Mérida Initiative focuses on eliminating these groups, whose largest sources of income have been targeted by Operation Michoacán, begun in 2006 by Felipe Calderón. The rival Los Zetas and Sinaloa groups are examples of, for 10 points, what illegal organizations responsible for recent violence in Mexico?**

ANSWER: Mexican drug cartels [or cárteles; prompt on "Mexican criminal organizations" or any answer that does not specifically mention cartels]

<Kothari>

12. **After emigrating to *this country* from the United States, Conlon Nancarrow composed his studies for player piano. A nineteenth-century composer from this country wrote the waltz *Over the Waves*. Aaron Copland incorporated folk songs from this country into a tone poem depicting one of its dance halls. The home country of composers such as (\*) Silvestre Revueltas, its popular ranchera songs include "Cielito Lindo." A folk ensemble from this country includes a vihuela and a guitarron, and originated in Jalisco. For 10 points, name this country whose Mariachi bands play songs such as "La Cuharacha" and "La Bamba."**

ANSWER: Mexico

<Magin>

13. This novel's protagonist learns about the three patterns used by trendy carpet-dyers in a letter from his wife and recalls having to choose between leather boots and felt valenki. One character in this novel is a joker named Kilgas who aids the protagonist in carrying a roll of tar-paper to the Power Station. Its protagonist owns an aluminum (\*) spoon with "Ust-Izhma" scratched on it. Another character in this novel, the Captain, debates film with an intellectual who receives food packages from his family. The protagonist, his roommate Alyosha the Baptist, and the aforementioned Caesar Markovich are among the members of Gang 104 in this novel. For 10 points, name this novel about the gulag experiences of a certain Mr. Shukhov, a work of Aleksandr Solzhenitsyn.

ANSWER: One Day in the Life of Ivan Denisovich [or Odin den' Ivana Denisovicha; or One Day of Ivan Denisovich; do not accept "A Day in the Life of Ivan Denisovich"]

<Carson>

14. The operator for this equals negative the quantity Planck's constant squared divided by twice the mass end quantity times del squared. The Hamiltonian is given by twice this quantity minus the Langragian, while the Lagrangian is given by this quantity minus U. In relativistic calculations, it is found by gamma minus one times  $mc^2$ . For a molecule of a gas, it is equal to three-halves times Boltzmann's constant times temperature. According to a namesake theorem, work equals the (\*) change in this. This is usually calculated as momentum squared divided by twice the mass, or as one half mass times speed squared. For 10 points, name this type of energy possessed by objects in motion.

ANSWER: kinetic energy [prompt on partial answer; prompt on "T" or "K"]

<Neithalath>

15. This man argued that miracles were meant to be temporary, lambasting "counterfeit miracles." He wrote about wearing the "breastplate of righteousness" and the "armor of God." This man wrote "continue to work out your salvation with fear and trembling," and proclaimed "For all have (\*) sinned and fall short of the glory of God." His most famous writings include an injunction that wives should submit to their husbands and another which describes love as "patient" and "kind." This man had his sight restored by Ananias after being blinded on the road to Damascus, an experience that got him to stop persecuting Christians and to change his name. For 10 points, name this Christian convert, an apostle who wrote many epistles, such as Romans and Corinthians.

ANSWER: Paul [accept Saul of Tarsus]

<Cheyne>

16. A 1964 riot sparked by this nation's flag being torn down is commemorated on Martyr's Day. The United States increased payments to the government of this country via the terms of the Remon-Eisenhower Treaty. The US dollar was made legal tender in this country under a constitution promulgated by its first president, Manuel Amador Guerrero. Rock-and-roll (\*) music was apocryphally used to capture a leader of this country during Operation Just Cause. Control over a prominent economic resource was transferred back to this country through the Carter-Torrijos Treaty, and George H. W. Bush intervened against its one-time dictator, Manuel Noriega. For 10 points, name this country, now divided by a namesake canal connecting the Atlantic and Pacific oceans.

ANSWER: Panama

<Bentley>

17. One possible diagnostic tool for this disease is Pittsburgh Compound B, a thioflavin derivative. Tissue from sufferers of this disease shows apple-green birefringence under polarized light after Congo Red staining. Genetic forms of it are linked to mutations in the gamma-secretase complex, and it is also linked to the ApoE4 allele. One protein important in its pathogenesis is cleaved from APP and forms peptides between 39 and 42 amino acids long. Another key protein in this disease binds to microtubules and is named tau. Beta-amyloid (\*) plaques are characteristic of this disease. It begins with loss of executive functions and loss of motor skill and memory is inevitable. For 10 points, name this neurodegenerative disease named for a Frenchman.

ANSWER: Alzheimer's disease

<Mukherjee>

18. In one of this man's works, the narrator travels to learn about the "system of soothing" from Monsieur Maillard, whose asylum has actually been taken over by its patients. This author of "The System of Doctor Tarr and Professor Fether" wrote a work whose narrator murders his wife after she prevents him from killing Pluto, whose eye the narrator had earlier gouged out. This author of "The (\*) Black Cat" and "A Descent into the Maelstrom" created a character whose motto is "No one insults me with impunity"; that character ignores cries of "For the love of God, Montresor!" while bricking up Fortunato in the catacombs. For 10 points, name this creator of C. Auguste Dupin who wrote "The Cask of Amontillado" and "The Tell-Tale Heart".

ANSWER: Edgar Allan Poe

<Gupta>

19. A fortress named for this ruler was home to a Jewish ghetto headed by Jakob Edelstein and was used to house Gavrilo Princip. This ruler founded the Royal Academy of Science in Zagreb. This ruler's advisor Abraham Theben helped relax policies towards Jews. This ruler employed the doctor Gottfried van Swieten and heavily promoted smallpox (\*) inoculation. She issued the Robot Patent to reform serfdom, though it was her successor Joseph II who abolished it completely. This ruler ascended after Charles VI's death due to the Pragmatic Sanction. For 10 points, name this Hapsburg ruler whose succession to the throne sparked the War of the Austrian Succession.

ANSWER: Maria Theresa Walburga Amalia Christina

<Mukherjee>

20. In one work, this man referenced a letter he got asking if a blind man identifying objects by touch could, with restored sight, recognize them visually -- a statement of Molyneux's problem. He argued against "paternal power" as the basis for kingly rule and said that monarchs cannot trace themselves back as heirs of Adam. In one work, he argued that the discovery of gold, which doesn't decay, ruined natural limits on accumulation, and that mixing one's own (\*) labor with natural resources creates a right to property. This philosopher argued that tyranny entitles people to dissolve the state and form a new social contract. For 10 points, name this author of *Two Treatises of Government*, an English thinker who also proposed the *tabula rasa*.

ANSWER: John Locke

<Jackson>

21. Historical records of this entity heavily rely on Augustine Ryther's translation of an account by Petruccio Ubaldini. This entity targeted a country that had just agreed, in the Treaty of Nonsuch, to support Dutch rebels. It was financially supported by Sixtus V. In response to this entity, one ruler proclaimed "I have the heart and stomach of a king" in a speech given at Tilbury. Cannon fire coming from the *Ark Royal* captained by Charles Howard eventually led to this entity's failure. It was commanded by (\*) Alonso Perez de Guzman, duke of Medina-Sidonia. The reassembly of this entity failed as a result of the Protestant Wind. For 10 points, name this naval fleet sent by Philip II of Spain for the invasion of England.

ANSWER: Spanish Armada [or Invincible Armada; or Armada Invencible]

<Huang>

22. The cells that produce this compound are depleted in piebaldism. The synthesis of this compound relies on TYRP1 and DCT, and most forms of this compound are derivatives of polyacetylene. It's not dopamine, but DOPA is transformed into dopaquinone during its synthesis. The vesicles containing it are transported by Slac2A and Rab27. Tyrosinase is required for the synthesis of this compound. The cells that contain this compound are stimulated by an appetite-stimulant hormone that is synthesized together with ACTH, which is why its levels are increased in (\*) Addison's disease. Sufferers of vitiligo lose this compound in patches. This compound is not produced in albinos. For 10 points, name this compound which gives skin its color.

ANSWER: melanin

<Mukherjee>

23. One character in this novel is a sailor who follows the protagonist to a country estate but is accidentally shot during a hunting party led by Sir Geoffrey Clouston. The protagonist's mother Margaret Devereux dies of grief a year after her father Lord Kelso arranges for her husband to be killed in a duel. A prostitute calls this novel's protagonist "Prince Charming" at an (\*) opium den, attracting the attention of James Vane, whose actress sister Sybil kills herself after the protagonist abandons her. This novel's other characters include the hedonistic Lord Henry Wotton and the artist Basil Hallward, who is stabbed by the protagonist. For 10 points, name this novel about a man whose sins are absorbed by a painting, a work of Oscar Wilde.

ANSWER: *The Picture of Dorian Gray* [do not accept "The Portrait of Dorian Gray"]

<Gioia>

24. One object in this place is covered in a purple ram's fleece that is used for rainmaking and is led up to by seven steps, each a different color of the rainbow. The Horae guarded the gates of this location, whose inhabitants liked the smell of mutton but didn't care for the taste. A hideous baby needed golden leg supports after he was thrown from this place for a second time. Located in Thessaly, this place employs (\*) Iris as a messenger. Bellerophon became a crippled hermit after failing to reach this place via Pegasus. Hestia relinquished a spot to Dionysus in this place, where great quantities of nectar and ambrosia are consumed. For 10 points, name this mountain, home to the thrones of twelve chief gods of the Greek pantheon.

ANSWER: Mount Olympus

<Gupta>

1. Projectiles moving in a gravitational field follow a trajectory of this shape, which is a conic section in which the plane hits only one of the cones. For 10 points each:

[10] Identify these curves which are traced out on the xy-plane by equations of the form  $y$  equals  $a$   $x$  squared plus  $b$   $x$  plus  $c$ .

ANSWER: **parabola**

[10] A parabola is defined as the set of points equidistant from a line called the directrix and a point given this name. An ellipse or hyperbola has two of these points.

ANSWER: **focus**

[10] Under this geometrical transformation, a parabola becomes the cissoid of Diocles. This transformation uses a unit circle to transform lines into circles and vice versa.

ANSWER: **inversion**

<Mukherjee>

2. The Julian sub-section of this mountain range includes the peak of the Triglav, which appears on the flag of Slovenia. For 10 points each:

[10] Name this mountain range, which runs across much of Switzerland.

ANSWER: **Alps** [or **Alpine** range or **Alpen** range or **Alip** range or **Alpes** range]

[10] The last major Alpine peak to be climbed was this mountain, which towers above the Swiss village of Zermatt. Four of the original climbers, including Lord Francis Douglas, were killed during their descent.

ANSWER: **Matterhorn** [or Monte **Cervino** or Mont **Cervin**]

[10] The "White Spider" is a snow feature on the dangerous north face of this Swiss mountain, which lies east of the Jungfrau (YUNG-frau).

ANSWER: **Eiger**

<Hoppes>

3. This hero rid the roads between Megara and Corinth of the rampaging Crommyonian Sow. For 10 points each:

[10] Name this son of both Aegeus and Poseidon, who abandoned Ariadne after she had helped him kill the Minotaur.

ANSWER: **Theseus**

[10] Theseus's father Aegeus was able to recognize him when he lifted a huge rock in order to take these two objects hidden underneath.

ANSWER: a **sword** and a pair of **sandals** [or synonyms of **sword**; prompt on "shoes" or any form of non-sandal footwear; both needed for the 10 points; also, if they only need prompting on one of the two parts, please say "prompt on (shoe-related noun given as answer)"]

[10] Theseus enacted poetic justice on this Attican bandit who stretched or cut limbs off victims to fit them to a bed by affixing him to his own device.

ANSWER: **Procrustes** [or **Prokoptas**; or **Damastes**]

<Gupta>

4. One of these characters was born from his mother's left ear after his mother ate too many tripes, while the other, his son, was nursed by 4600 cows and travels to the Island of the Holy Bottle. For 10 points each: [10] All or nothing, identify these two characters who name a series of novels by Francois Rabelais.

ANSWER: **Gargantua** and **Pantagruel** [accept answers in either order; accept *The Life of Gargantua and Pantagruel*]

[10] This companion of Pantagruel knows 63 ways to make money and 214 ways to lose it. He gets married after he interprets the Holy Bottle as telling him to "drink".

ANSWER: **Panurge**

[10] This author of *The Revolt of the Angels* delivered a series of lectures on Rabelais while touring Buenos Aires. He wrote of the nearsighted Abbot Mael's baptism of a group of birds in his novel *Penguin Island*.

ANSWER: Anatole **France** [or Francois-Anatole **Thibault**]

<Bentley>

5. Herbert Simon's *Administrative Behavior* uses the concept of the "satisficer" to explain the "bounded" form of this term. For 10 points each:

[10] Identify this term that, as an adjective, describes a type of "choice theory" in which actors make purely analytical decisions based on calculated costs and benefits.

ANSWER: **rationality** [accept all word forms]

[10] Rational choice theory was sharply criticized for failing to account for the intuitive nature of human behavior by this 20th-century French thinker, who pioneered the study of practice and agency in sociology and wrote *Distinction: A Social Critique of the Judgement of Taste*.

ANSWER: Pierre **Bourdieu**

[10] Bourdieu extended the work of this fellow Frenchman, a Positivist who expounded the Law of the Three Stages and is seen as the founder of sociology.

ANSWER: Auguste **Comte**

<Ray>

6. The object at the center of this work was moved from the Circus of Maxentius. For 10 points each:

[10] Identify this statue in the middle of the Piazza Navona in Rome. One of the title allegorical figures is blindfolded because its source was unknown, while another holds an oar.

ANSWER: *The **Fountain of the Four Rivers*** [or ***Fontana dei Quattro Fiumi***]

[10] *The Fountain of the Four Rivers* was created by this Italian Baroque sculptor. His other work includes *The Ecstasy of Saint Theresa*.

ANSWER: Gian Lorenzo **Bernini** [or Gianlorenzo **Bernini** or Giovanni Lorezno **Bernini**]

[10] *The Fountain of the Four Rivers* surrounds an Egyptian obelisk. Another such obelisk can be found in New York;s Central Park, which was designed by this landscape architect in collaboration with Calvert Vaux.

ANSWER: Frederick Law **Olmsted**

<Bentley>



7. Examples of these entities include Shamir, which owns an optical industry that's listed on NASDAQ. For 10 points each:

[10] Identify these collective farming communities whose members are generally over-represented in their country's Knesset.

ANSWER: **Kibbutzim** [or **qibbutzim**]

[10] Kibbutzim can be found in this country, which was victorious in the Six-Day War over Egypt, Syria, and Jordan.

ANSWER: State of **Israel**

[10] Many kibbutzim were founded during the second of these mass migrations to Israel, which comes from the Hebrew for "ascent". This term is contrasted with *yerida*.

ANSWER: **Aliyah** [or **aliyoth**; or **aliyot**; or **'aliya**]

<Bentley>

8. This law is a restatement of the first law of thermodynamics. For 10 points each:

[10] Identify this law which states that the total enthalpy change of a reaction is equal to the sum of the enthalpy changes of each step.

ANSWER: **Hess's** law

[10] Hess's law is the basis of this procedure, which is used to calculate the lattice energy of ionic solids. It begins with the vaporization of the metal followed by redox reactions and eventual formation of the ionic solid.

ANSWER: **Born-Haber** cycle

[10] Hess's law works because enthalpy is one of these functions, which don't depend on the path of a system but only on its current properties.

ANSWER: **state** function

<Mukherjee>

9. The title character of this work loses his sense of time and, at the end, arrives to find his house locked and sold. For 10 points each:

[10] Name this story about Neddy Merrill, who goes home from a cocktail party through a series of pools.

ANSWER: "The **Swimmer**"

[10] "The Swimmer" is by this American author of short stories like "The Country Husband" and "The Enormous Radio." His novels include *The Wapshot Chronicle* and *Falconer*.

ANSWER: John William **Cheever**

[10] This writer for the *New Yorker* was heavily influenced by the works of Cheever. His best-known works include the *Rabbit* series, which centers on former basketball star Harry Angstrom.

ANSWER: John Hoyer **Updike**

<Bollinger>

10. Answer the following about the historical region of Burgundy, for 10 points each.

[10] The Duchy of Burgundy was annexed by France following the death of this Duke. He left his kingdom to his daughter, Mary the Rich.

ANSWER: **Charles the Bold** [or **Charles the Rash**; or **Charles le Temeraire**; or **Charles Martin**; or **Charles the Terrible**; prompt on "Charles"]

[10] Charles the Bold was a member of this dynasty. Henry III was the last French monarch from this dynasty, which was succeeded by the Bourbon dynasty.

ANSWER: House of **Valois** [or **Valois** Dynasty]

[10] Following the assassination of John the Fearless, a "good" man of this name became Duke of Burgundy. A French king with this name was the first from the Valois dynasty, while the fourth disbanded the Knights Templar.

ANSWER: **Philip**

<Bentley>

11. This cycle has two isothermal and two isentropic phases, and it generates work during its adiabatic expansion phase. For 10 points each:

[10] Identify this maximally efficient reversible thermodynamic cycle, which generates work by moving heat from a hot reservoir to a cool reservoir.

ANSWER: **Carnot** cycle

[10] This parameter, symbolized eta, is equal to one minus the quantity temperature of cold reservoir divided by temperature of the hot reservoir. It is the proportion of inputted heat that generates work.

ANSWER: **efficiency**

[10] This restatement of the second law of thermodynamics states that the line integral of  $dQ$  over  $T$  for a heat engine is equal to or less than zero.

ANSWER: **Clausius**' theorem

<Mukherjee>

12. During the Night Journey, Moses managed to decrease the number of prayers that Allah demanded of humans. For 10 points each:

[10] Moses managed to get the number of prayers reduced from fifty to this many. The pillar of salat states that Muslims must pray this many times per day.

ANSWER: **five**

[10] This is the name given to the direction of prayer, which is towards the kaaba in Mecca. Mosques contain a small niche called a mihrab that indicates this direction.

ANSWER: **qibla**

[10] A special form of prayer is performed during these two festivals, one of which follows the end of Ramadan and the other of which involves a goat sacrifice.

ANSWER: **eid**s

<Mukherjee>

13. This play, the two sequels to which are no longer extant, ends with the title character belittling Hermes before Zeus's thunderbolt drives him into the earth. For 10 points each:

[10] Identify this Greek tragedy set on a barren cliff in Scythia, whose title character is visited by the Oceanids and Io and delivers the "catalogue of the arts".

ANSWER: Prometheus Bound

[10] *Prometheus Bound* is generally attributed to Aeschylus, whose other tragedies include one in which Polynices and six other warriors wage war against this Greek city.

ANSWER: Thebes

[10] In this other Aeschylus play, Athena's vote for acquittal at the Areopagus saves the life of Orestes over the objections of the title characters.

ANSWER: *The Eumenides* [accept *The Furies*]

<Bentley>

14. These symphonies were composed for a series of concerts by Johann Peter Salomon. For 10 points each:

[10] Identify this group of twelve symphonies, which include ones commonly known as *Military*, *Drumroll*, and *The Clock*.

ANSWER: London Symphonies

[10] This Austrian "father of the symphony" composed the London symphonies, which include his *Surprise* symphony.

ANSWER: (Franz) Joseph Haydn

[10] This sacred Haydn choral work in D minor was written around the time of Napoleon's defeat at the Battle of the Nile, leading many to associate it with English victory. It is celebrated for the dark trumpet and timpani passages in its opening Kyrie.

ANSWER: Nelson Mass [or Missa in Angustiis; or Mass in Troubled Times or any reasonable translation; do not accept Mass in the time of War]

<Rosenberg>

15. After seizing power, he changed his name to a phrase meaning "the all-powerful warrior who goes from conquest to conquest, leaving fire in his wake." For 10 points each:

[10] Name this leopard-print-hat wearing strongman, who emerged victorious from the Congo Crisis and changed his country's name to Zaire, ruling from 1965 to 1997.

ANSWER: Mobutu Sese Seko Nkuku Ngbendu wa Za Banga [or Joseph Desiré Mobutu]

[10] This second Secretary-General of the United Nations died in a plane crash while attempting to mediate the Congo Crisis.

ANSWER: Dag Hammar-skjöld

[10] Part of the Crisis was the 1960 secession from the Congo of this copper-laden province, led by Moïse Tshombe.

ANSWER: Katanga

<Weiner>

16. One of the last masters of this form created works like *Famous Views of the Eastern Capital* and *Sixty-nine stations on the Kisokaido*. For 10 points each:

[10] Identify this genre of woodcuts created by such artists as Kitagawa Utamaro.

ANSWER: **Ukiyo-e** Prints [or **ukiyo-e** or **Pictures of the Floating World**]

[10] Perhaps the most famous ukiyo-e prints are a series of views of this geological feature by Katsushika Hokusai. One such print shows this tallest mountain in Japan in the background as a great wave threatens Kanagawa.

ANSWER: **Mount Fuji** [or **Fuji-san**]

[10] This artist's *Maternal Caress* was painted in the ukiyo-e style. Better known paintings by this Western artist include *At the Opera* and one in which the artist's mother is reading *Le Figaro*.

ANSWER: Mary Stevenson **Cassatt**

<Bentley>

17. This novel's protagonist becomes quickly discouraged while researching under Father Ensheim's guidance in a Benedictine monastery in Bonn. For 10 points each:

[10] Name this novel in which Larry Darrell has a spiritual epiphany while studying with Shri Ganesha and rejects the chance to marry the wealthy heiress Isabel Bradley to return to New York to be a mechanic.

ANSWER: *The **Razor's Edge***

[10] In this novel by the author of *The Razor's Edge* and *Cakes and Ale*, the club-footed Philip Carey eventually gives up his dreams of travel to marry Sally Athelney.

ANSWER: ***Of Human Bondage***

[10] This British author wrote the short story "Rain", as well as *The Razor's Edge* and *Of Human Bondage*.

ANSWER: William Somerset **Maugham** ("MAWM")

<Gioia>

18. This work imagines Parisian traffic courts using toy cars and dummies to reenact accidents in its explication of "picture theory." For 10 points each:

[10] Name this work which contains such maxims as "what can be said at all can be said clearly, and what we cannot talk about we must pass over in silence" and "the world is all that is the case." It was written by Ludwig Wittgenstein.

ANSWER: ***Tractatus Logico-Philosophicus*** [or ***Logical-Philosophical-Treatise***]

[10] Wittgenstein argued against the possibility of a private form of these constructions, which are categorized into families such as Sino-Tibetan and Indo-European.

ANSWER: **languages**

[10] In *On Certainty*, Wittgenstein responded to this philosopher's argument that by showing two hands, one can show that there are two external objects, and thus an external world. He grumbled about the naturalistic fallacy in *Principia Ethica*.

ANSWER: George Edward **Moore**

<Gupta>

19. Section 7 of article 1 of the Confederate Constitution granted the president of the Confederacy this power, which was briefly given to the U.S. President to curb pork-barrel spending. For 10 points each: [10] Identify this power, by which the executive could disapprove some parts of a bill but leave others intact.

ANSWER: line-item veto

[10] This American president was briefly given the power of the line-item veto, but after he used it to cancel parts of the Balanced Budget Act, the Supreme Court struck down the Line-Item Veto Act in a suit brought against him by the state of New York.

ANSWER: William Jefferson "Bill" Clinton [or William Jefferson Blythe III]

[10] This other form of veto occurs when Congress adjourns during the ten-day period that a president has to make a decision about a bill. It was used by Lincoln against the Wade-Davis Bill.

ANSWER: pocket veto

<Mukherjee>

20. The anopheles mosquito carries the causative agent of this disease, which is treated with chloroquine or mefloquine. For 10 points each:

[10] Name this illness caused by the Plasmodium parasite, which is characterized by headaches and recurrent fevers. It is commonly diagnosed using a blood film.

ANSWER: malaria

[10] Besides Plasmodium malariae, there are three species of Plasmodium that cause malaria, with some being more severe than others. Name any one for 10 points.

ANSWER: falciparum, vivax, or ovale [accept any underlined portion]

[10] The sporozoites of the plasmodium parasite invade this organ and transform into merozoites, which then rupture cells in this organ.

ANSWER: liver

<Mukherjee>

21. He was condemned by Zhou Enlai for criticizing Albania at the 1961 Congress of the Communist Party. For 10 points each:

[10] Name this Soviet leader who, at the 1956 Congress, delivered the "Secret Speech" denouncing the personality cult of Stalin.

ANSWER: Nikita Sergeyevich **Khrushchev**

[10] Perhaps Khrushchev's most famous rhetoric was not a planned speech, but rather a spontaneous outburst to Western dignitaries at a 1956 reception in Moscow, where Khrushchev announced that "history is on our side" and then exclaimed "My vas pokhoronim!," usually translated as this four-word English phrase.

ANSWER: "**We will bury you!**"

[10] Three years later, Khrushchev had another unplanned public rhetorical moment when he began arguing with U.S. Vice-President Nixon during a tour of a model home, which became known as this incident.

ANSWER: the "**Kitchen debate**"

<Weiner>

22. The "absolute" version of this concept is given as the "apparent" version standardized to a distance of 10 parsecs. For 10 points each:

[10] Name this measure of a star's brightness, plotted on a logarithmic scale modified from one constructed by Hipparchos.

ANSWER: **magnitude** [accept **apparent magnitude** or **absolute magnitude**]

[10] The Hertzsprung-Russell diagram plots effective temperature or spectral type against absolute magnitude or this closely-related quantity, the amount of energy radiated per second.

ANSWER: **luminosity**

[10] Because these stars have a mean absolute magnitude of 0.75, determining the mean apparent magnitude for one allows calculations of the distance to the globular cluster it is in. These variable stars are older and smaller than Cepheid variables.

ANSWER: **RR Lyrae** stars

<Wynne>

23. Its third stanza considers the "inhuman birth" of "Jove in the clouds", while its fifth notes that "Death is the mother of beauty", and it later describes a "ring of men" who "chant in orgy" their "devotion to the sun". For 10 points each:

[10] Name this poem in which a woman with a pet cockatoo thinks about religious imagery as she enjoys the "complacencies of the peignoir, and late coffee and oranges in a sunny chair".

ANSWER: "**Sunday Morning**"

[10] This modernist American poet of "Anecdote of the Jar", "The Idea of Order at Key West", and "Thirteen Ways of Looking at a Blackbird" wrote "Sunday Morning".

ANSWER: Wallace **Stevens**

[10] This Stevens poem describes a woman's body whose protruding "horny feet" show her to be dead. It exhorts "Let be be finale of seem" and begins "Call forth the roller of big cigars".

ANSWER: "The **Emperor of Ice Cream**"

<Jackson>