

1. This work's fifth movement features a slow, repeated two-note motif which represents the passing of time. The composer of this work adapted the andante maestoso theme from its fourth movement into the hymn "I Vow to Thee, My Country." Its final movement ends with shimmering harp and celesta arpeggios giving way to an offstage six-part wordless female chorus which slowly fades into silence. This suite's first movement begins with the strings playing (*) col legno before transitioning into a blaring brass march in 5/4 time. The subtitles of its seven movements, such as "the Bringer of Jollity" and "the Bringer of War," were inspired by astrology. For 10 points, name this suite by Gustav Holst whose movements include "Saturn" and "Mars."

ANSWER: *The Planets*

<Magin>

2. One method of testing whether a number n is one of *these* involves asking whether $5n$ squared minus 4 or $5n$ squared plus 4 is a perfect square. One method of generating these numbers is to repeatedly take powers of the two-by-two matrix one-one-one-zero, and the Wall-Sun-Sun primes are defined using these numbers. The generating function x divided by the quantity 1 minus x minus x squared creates these numbers. Taken modulo some integer n these numbers gives rise to (*) Pisano periods. The ratio between successive members of these numbers approaches 1 plus the square root of 5 all over 2 , which is known as the golden ratio. For 10 points, name this sequence of numbers, a given member of which is a sum of the previous two entries.

ANSWER: Fibonacci numbers

<Mukherjee>

3. This author instructed his actors to repeatedly fold a blanket in halves until there is room only for four feet to create the set for one of his "statement plays." In that play by this author, the inmates John and Winston stage an adaptation of *Antigone*. This author of *The Island* wrote a play set at St. George's Park Tea Room in which the central characters reminisce about flying a kite and decide that Charles Darwin and Abraham Lincoln, but not (*) Napoleon, are "men of magnitude". That play by this man ends after news of his father's return prompts one character to angrily demand that Sam, like Willie, call him by the title appellation. For 10 points, name this South African author of *Blood Knot* and *Master Harold and the Boys*.

ANSWER: Athol Fugard [or Harold Athol Lanigan Fugard]

<Gupta>

4. One man with this first name has an affair with his sister, Bernice, and sarcastically asks Paul if he thinks he can persuade him to be a Christian. Another man with this name is hailed as a god, not a man, which results in him being "eaten by worms" and dying. The father of the most famous one was Idumean and married an Arabian woman named Cyprus. Besides (*) Agrippa and Antipas, this name was held by a ruler who became entranced by the dancing of his wife's daughter and ordered an execution. This was the first name of the king who executed John the Baptist and a ruler who lied to the Magi that he wanted to worship the newborn Christ. For 10 points, give this name shared by various kings of Judea, including one who ordered the massacre of the innocents.

ANSWER: Herod [accept Herod Antipas, Herod Agrippa, Herod the Great, or Herod the tetrarch]

<Cheyne>

5. This group was technically supposed to cease the "reisen," their annual raids into Lithuania, after the marriage of Jagiello and Jadwiga. They absorbed a similar group, the Brothers of the Sword, in Livonia. Responding to a call for help from Conrad of Moravia, this group crusaded against the pagans of (*) Prussia and eventually turned it into a separate state. Their Livonian branch's expansion east was stopped by Alexander Nevsky at the Battle on the Ice. Prussia became the seat of this group's power shortly after the fall of Acre, where this group had originally been founded to aid Christian pilgrims and crusaders. For 10 points, name this military order whose members were mostly German.

ANSWER: **Teutonic Knights** [or **Teutonic Order**; prompt on "Livonian Brothers of the Sword" or "Livonian Brothers" before it is read]

<Bailey>

6. An engineer in this novel describes a delirious episode in which he saw pink toads gathering around his bed right before a tragedy. Its protagonist rejects Chester's offer to join him gathering guano on a secluded island for the rest of his life. In this novel Cornelius betrays his stepdaughter Jewel's husband after Mr. Stein gives the protagonist his old job. After foolishly releasing the imprisoned pirate "Gentleman Brown," the title character of this novel is shot by chief (*) Doramin as retribution for the death of his son Dain Waris. The title character of this novel gets a job at a trading post on the isle of Patusan after he is condemned for abandoning his post as an officer on the sinking *Patna*. For 10 points, name this novel by Joseph Conrad.

ANSWER: Lord Jim

<Gioia>

7. Carl Bridenbaugh suggests the early history of this location saw its library burned down by arsonists who opposed Robert Hunt. One document comparing its prison to Amiens was written by Pierre Baird. Inhabitants of this location invested their income in the construction of an armory at Martin's Hundred Fort. One head of this location attempted to solve the problems of food shortage by sending Thomas Dale to build farms at Henricus. Two decades after the (*) "Starving Time," this place was destroyed in a conflict that saw the dissolution of the Green Spring Faction under William Berkeley, Bacon's Rebellion. For 10 points, name this Virginia town, home to settlers John Smith and John Rolfe, which was the first permanent English colony in North America.

ANSWER: Jamestown

<Foster>

8. The leftmost figure in this work wears a medallion of the Order of St. Michael attached to a gold chain around his neck. An open book in this painting reveals that the man holding a glove in his right hand is 25 years old. Other visible text in this painting includes the Ten Commandments and a translation of Luther's *Veni, Creator Spiritus*. One man's arm is in front of a (*) globe in this work, while a lute with a broken string may represent religious discord. A crucifix peers out behind a green curtain in the top left of this painting, while the foreground contains an anamorphic image of a skull. This work is a dual portrait of Georges de Selve and Jean de Dinteville. For 10 points, name this Hans Holbein portrait of two foreign dignitaries.

ANSWER: *The French* Ambassadors

<Bentley>

9. This compound causes pyrogallol solution to turn colorless. Methods of measuring the amount of this compound in solution include adding manganese sulfate and potassium iodide in the Winkler test. Another method to measure its concentration uses a zirconia probe. Molecular orbital theory is used to explain why its triplet form is paramagnetic, and its singlet form is very reactive. One molecule of it is combined with sulfur dioxide in the first step of the (*) contact process, which eventually produces sulfuric acid. Subjecting it to strong electric shocks transforms it into its triatomic form, which is called ozone. For 10 points, name this diatomic gas, which comprises 21% of Earth's atmosphere and is exchanged with CO₂ in respiration.

ANSWER: Diatomic oxygen [or O₂]

<Mukherjee>

10. This work says the word "tribe" became "almost a chimera" in ancient Rome as it lost legal meaning in a section on the *comitia* and twice references Caligula's reasoning that people needed him as a god. It says that moral qualities can't be quantified, so birth rate should instead be used as a sign of successful states. Its first section attacks Grotius, saying no man has a right to "alienate" all his liberty to another. This work notes that (*) hotter climates are more suited to despotism. It argues that the whole body of citizens forms "the sovereign," which operates according to the general will and leaves each man "forced to be free." For 10 points, name this work beginning "Man is born free, yet everywhere he is in chains," by Jean-Jacques Rousseau.

ANSWER: *On The Social Contract* [or *Du contrat sociale*]

<Jackson>

11. Benedict Anderson posited that this device created a namesake form of capitalism that facilitated the rise of the "Imagined Communities" underlying nationalism. One work about this device states that it creates a "visual homogenization" that encourages a specialist outlook and allowed the emergence of rationalism and nationalism. Jurgen Habermas stated that this device allowed the (*) public sphere to exist apart from the private domain. This device was said to have catalyzed the eventual creation of "Global Villages" in a Marshall MacLuhan work named for the "Galaxy" of its inventor. For 10 points, identify this device first used in Mainz to create a 42-line Bible by that inventor, Johannes Gutenberg.

ANSWER: printing press [accept movable type even though that's not exactly a "device;" prompt on answers of just "press" or "print;" do not accept unlikely-but-very-wrong answer of "printer"]

<Mukherjee>

12. A bearded man shakes hands with the Queen of Sheba in a scene from this work that may represent the Treaty of Santa Maria Novella. Commissioned by the Arte di Calimala, this work was a follow-up to a project completed 70 years earlier by Andrea Pisano. Its artist sculpted himself into a medallion piece over the Nativity and Adoration of the Magi scenes. During the 20 years it took to create its 10 panels, the artist also created bronze statues for the Orsanmichele and was helped by Michelozzo. A scene in bronze of (*) Abraham sacrificing Isaac was created by two artists competing for this commission; the loser in that competition was Brunelleschi. For 10 points, give the name of this portal for the Baptistery in Florence created by Lorenzo Ghiberti.

ANSWER: The Gates of Paradise [or the Doors of Paradise; accept the North Doors of the Baptistery in Florence or the East Doors of the Baptistery before "Baptistery" is read]

<Bentley>

13. The ratio between this value and the critical density of the universe is approximately 0.7, and that value corresponds to the dark energy density. It is multiplied by one third of the square of the speed of light in the Friedmann equation. Taking this quantity divided by 8 pi gives the vacuum energy density. Quantum field theories unusually predict its value to be 120 orders of magnitude greater than its real value. This value originally appeared multiplying the metric tensor in the (*) Einstein Field Equations in order to maintain a stationary universe. Einstein referred to its conception as the "biggest blunder" of his life since the universe is expanding. For 10 points, identify this mysterious value in general relativity symbolized lambda.

ANSWER: cosmological constant [or lambda till mention]

<Mukherjee>

14. In 1983, the completion of a suspension bridge in this country's principal ocean port of Matadi linked its capital to the coast for the first time. This country's city of Goma has suffered because the Dodd-Frank Banking Act requires companies to report the use of coltan originating in this country. The northeastern part of this country relies on trade in the city of Kisangani, while its southern city of Lubumbashi has boomed because of the high price of copper mined in the (*) Katanga region. Angolan security forces raped female citizens of this country en masse in 2010 while deporting them, and this country has also seen a dramatic rise in rapes in provinces that border Rwanda and Uganda. For 10 points, name this African country whose capital is Kinshasa.

ANSWER: Democratic Republic of the Congo [accept DRC; prompt on "Congo"; accept Congo-Kinshasa before "Kinshasa" is mentioned; do NOT accept "Republic of the Congo"]

<Haddad-Fonda>

15. One of this author's protagonists can quickly learn any language he encounters; that man saves the life of Niketas Choniates after visiting Prester John's kingdom. The protagonists of another of his novels are inspired by a book written by Colonel Ardeni to create the computer Abulafia. In his first novel, the protagonists encounter the Inquisitor Bernard Gui and the blind monk Jorge of Burgos, who eats the (*) poisoned manuscript of Aristotle's *Comedy*. One of his novels centers on a conspiracy created by Belbo, Diotellavi, and Causabon, while in another, a murder is investigated by Adso of Melk and William of Baskerville. For 10 points, name this Italian author of *Baudolino*, *Foucault's Pendulum* and *The Name of The Rose*.

ANSWER: Umberto Eco

<Graebner>

16. One group of these creatures were controlled by a copper staff belonging to Phaethusa, whose sister Lampetia described a slaughter of them carried out by Eurylokhos. Eight of these animals were dragged by their tails to throw their owner off the trail by a fire-breathing monster named Cacus. Another set of them was protected by a two-headed offspring of Typhon and Echidna named (*) Orthrus. The infant Hermes stole a group of these animals belonging to Apollo. Odysseus sacrificed a group of them belonging to Helios, dooming his crew. A group of red ones originally belonging to a three-headed giant were sacrificed by Eurystheus after being stolen as part of Heracles' Tenth Labor. For 10 points, name these animals herded by Geryon.

ANSWER: cattle [or oxen; accept equivalent like cows, bulls, etc; accept more specific answers like cattle of Geryon or cattle of Helios]

<Mukherjee>

17. Foreign commercial rights in this city were extended after the physician William Hamilton cured Farrukh Siyar of an agonizing disease. Protection against the *bargis* for citizens of this city was provided by the Maratha Ditch. A park called Maidan surrounds Fort William in this city. In the 1960s, this city's Presidency College became a center of the Naxalite movement. This city serves as the capital of the state of (*) West Bengal. In the eighteenth century, men under the command of John Holwell were killed in this city after being imprisoned by Siraj al-Dawlah in a cramped prison. For 10 points, name this Indian city that served as the capital of the British raj, home to a dungeon called its "black hole".

ANSWER: Kolkata [or Calcutta or Kalikata]

<Bentley>

18. This disease shares many features with Noonan syndrome, and one variant of this disease is caused by ring formation. Sufferers of this disease often have trans-illuminating tumors called cystic hygromas, and it is also associated with coarctation of the aorta and bicuspid aortic valves. 15% of sufferers also have horseshoe kidneys, and one of the most striking features is the shield-shaped chest. Estrogen replacement therapy is a common treatment for this condition. Streak gonads are another characteristic of this disease, leading to (*) infertility. Patients with this condition also have a webbed neck and mild mental retardation. For 10 points, name this genetic condition, in which patients have only one X chromosome.

ANSWER: Turner's syndrome

<Mukherjee>

19. After this man's correspondence with the comte de Mirabeau was discovered, the count's remains were removed from the Pantheon. His finance minister Calonne's attempts at abolishing the corvée were opposed by the parlements, and another of his finance ministers published the *Compte rendu*, a report showing a large surplus for the kingdom. Charles Gravier was this man's foreign minister, who advised supporting the (*) American colonists in their revolt from England. This man called an Assembly of Notables after that support of American colonists led to a national debt crisis and later followed the Assembly's suggestion of calling the Estates General. For 10 points, name this French monarch who was executed by the Revolutionary government in 1793.

ANSWER: King Louis XVI [prompt on "Louis"]

<Bailey>

20. A phrase from this poem titles both an unfinished sequel to *A Touch of the Poet* and a Kurt Vonnegut story whose main character obsesses over home and garden magazines. Its fourth stanza begins "Thanks for the heavenly message brought by thee". This poem describes "cold sea-maids" that "rise to sun their streaming hair" and describes an "irised ceiling" and a "sunless crypt". It urges its subject to "leave thy (*) low-vaulted past" and to "let each new temple" "shut thee from heaven with a dome more vast". It describes "silent toil" that spreads the title creature's "lustrous coil" and commands "Build thee more stately mansions, O my soul". For 10 points, name this poem about a creature that lives in a "ship of pearl", a work of Oliver Wendell Holmes.

ANSWER: "The Chambered Nautilus"

<Jose>

21. These organelles contain GNPAT, which catalyzes the early steps of plasmalogen synthesis. Its targeting signal is a C-terminal serine-lysine-leucine motif. One disease of these organelles results in the inability to break down very long chain fatty acids, while another one is caused by a mutation in Pex2 and is treated with Lorenzo's oil. The glyoxylate cycle occurs in a specialized type of these organelles called glyoxysomes. Adrenoleukodystrophy and Zellweger's syndrome are malfunctions of this organelle, which contains an extremely high-speed enzyme called (*) catalase. These organelles are responsible for stopping damage from reactive oxygen species. For 10 points, name these organelles which are responsible for breaking down hydrogen peroxide.

ANSWER: peroxisomes

<Mukherjee>

22. This man boarded the *Cambria* for a journey in which he took up the slogan "Send Back the Money!" against Scottish churches after visiting Ireland. In one work, this man recalls his views of white-sailed ships in the distance, the shooting of Demby, and his fight with Edward Covey. This man claimed in one speech that "gross injustice and cruelty" is revealed at its height on the 4th of July. This man never learned that (*) Victoria Woodhull chose him to be her vice presidential candidate. He gave that aforementioned speech in Rochester, where this male supporter of the Seneca Falls convention edited the North Star newspaper. For 10 points, name this black rights activist who described his own escape from Maryland in three slave narratives.

ANSWER: Frederick Douglass [or Frederick Augustus Washington Bailey]

<Jackson>

23. One of this man's works ends with the narrator throwing a button into a river, thus helping Uncle Caesar get away with murdering Major Caswell to protect Azalea Adair. He wrote a story in which the wannabe criminal Soapy is arrested for loitering after deciding to turn his life around. This author of "A Municipal Case" and "The Cop and the Anthem" wrote a story about Bill Driscoll and Sam Howard's unsuccessful attempt to (*) kidnap the son of Ebenezer Dorset. In his most famous work, found in his collection *The Four Million*, Jim buys a set of elaborate combs for his wife, only to find that she had sold her hair to buy him a chain for the watch he'd just sold. For 10 points, name this author of "The Ransom of Red Chief" and "The Gift of the Magi".

ANSWER: O. Henry [or William Sydney Porter]

<Bentley>

24. A popular one of these constructs was designed by Thomas Kurtz and John Kemeny at Dartmouth. One sub-class of these entities lack side effects and are exemplified by Miranda and Clean; those are the "purely functional" types. They're not context-free grammars, but the Backus-Naur Form is often used to define syntax in these entities. One of these constructs is named for (*) Haskell Curry. Type conversion is easy in examples of these constructs that have weak typing. These constructs are usually supplemented by a standard library. Low level examples of these constructs include Assembly, while higher-level examples include PHP and Python. For 10 points, name these constructs that include C, BASIC and Java, used to write programs.

ANSWER: Programming Languages [accept Functional Programming Languages or Purely Functional Programming Languages before mentioned; accept computer language; prompt on "languages"]

<Bentley>

1. This artist's photographic work includes stop-motion compositions like *Double Jump* and *Pole Vaulter*. For 10 points each:

[10] Identify this American artist whose non-photographic depictions of nudes include paintings like *The Swimming Hole*. He also painted *Max Schmitt in a Single Scull*.

ANSWER: Thomas Eakins

[10] Thomas Eakins collaborated on several works with Eadweard Muybridge. Muybridge is most famous for taking stop-motion photos of one of these animals to prove that all four of its hooves leave the ground while trotting.

ANSWER: horse [or racehorse]

[10] This other American photographer captured a horse-drawn carriage in *Winter –Fifth Avenue* and created a work where a roped walkway visually divides people on a steamship titled *The Steerage*.

ANSWER: Alfred Stieglitz

<Bentley>

2. Answer some questions about the occult, for 10 points each.

[10] Masonic scholarship is studied in a "research" variety of these buildings, which form the basic organizational unit of Freemason societies.

ANSWER: Masonic lodges [or private lodges; or constituent lodges]

[10] This neo-pagan occult movement was created by Gerald Gardner, who wrote the *Charge of the Goddess*. Observers worship deities on the full moon and wear pentagram symbols.

ANSWER: Wicca

[10] This British occultist was inspired by Rabelais to start the Abbey of Thelema, whose slogan was "Do What Thou Wilt". He wrote *The Book of Lies* and was a member of the Ordo Templi Orientis.

ANSWER: Aleister Crowley

<Mukherjee>

3. Identify the following about the non-poetic works of Johann Wolfgang von Goethe, for 10 points each.

[10] In this novel, Eduard and Charlotte invite the Captain and Ottilie to stay with them in their Weimar estate, which causes the relationships to undergo a metaphorical double displacement reaction.

ANSWER: Elective Affinities [or *Die Wahlverwandtschaften*]

[10] In this tragic play published in two parts, Goethe's most famous work, Mephistopheles appears before the title character in the form of a black poodle and makes a pact.

ANSWER: Faust: A Tragedy

[10] Goethe also created this character, who joins the Tower Society and travels to the Pedagogical Province in two novels about his "Apprenticeship" and his "Journeyman Years".

ANSWER: Wilhelm Meister [accept either underlined answer]

<Ueda>

4. People who enlist with this force must adopt an *anonymat*, and its monument to the dead was originally located in Sidi Bel Abbes in Algeria. For 10 points each:

[10] Identify this military unit traditionally made up of non-French born soldiers.

ANSWER: French **Foreign Legion** [or **Légion étrangère**]

[10] The French Foreign Legion fought several battles against the "Amazons" of this African Kingdom in an 1892 war. This kingdom was once led by Gezu and comprised much of what is now southern Benin.

ANSWER: Kingdom of **Dahomey**

[10] Legionnaires participated in the Toyota War, fought between Libya and this neighboring nation. It is currently led by Idriss Deby and has seen a large influx of refugees from Darfur.

ANSWER: **Chad**

<Bentley>

5. Longitudinal waves are unable to acquire this property. For 10 points each:

[10] Identify this property of electromagnetic radiation in which oscillations occur in only a single plane. Light can have linear, circular, or elliptical versions of this property.

ANSWER: **polarization** [or word forms]

[10] For a refraction event, this is the angle at which light of a given polarization is perfectly transmitted from one medium to another.

ANSWER: **Brewster** angle

[10] This law gives the intensity of light transmitted through a polarizer. It states that the ratio between the intensity of the transmitted and incident light is the cosine squared of the angle between the axis and the incident polarization.

ANSWER: **Malus'** law

<Mukherjee>

6. Answer these questions about psychological studies involving rats, for 10 points each:

[10] This founder of behaviorism conditioned one subject, "Little Albert," to fear not only a white rat, but also other white fuzzy things such as a Santa Claus beard.

ANSWER: John Broadus **Watson**

[10] Watson and Harvery Carr developed this experiment, in which rats originally trained to run a long alley to reach food were observed to smash headlong into a wall when the alley's length was shortened. Its name derives from the resulting sound.

ANSWER: **kerplunk** experiment

[10] Bruce Alexander and colleagues developed "Rat Park" to explore the effects of social isolation versus engagement on the incidence of this phenomenon, examining the prevalent "disease model" of it.

ANSWER: **addiction** [or chemical **dependence**; accept close equivalents; accept specific answers like "drug **addiction**," "morphine **addiction**," etc.]

<Wynne>

7. In humans, these regions contain the histone variants CENP-A and CENP-C and have a high concentration of alpha-satellite repeats. For 10 points each:

[10] Name this highly compacted region usually found in the middle of a chromosome that joins the two arms. When a chromosome divides, the spindle attaches at this site.

ANSWER: **centromere**

[10] During mitosis, chromosomes separate at the centromere during this particular phase. This phase occurs when separase helps cleave cohesins, which then drive sister chromatids apart.

ANSWER: **anaphase**

[10] This protein complex forms on the centromere during mitosis and serves as the actual attachment point for the microtubules of the mitotic spindle.

ANSWER: **kinetochore**

<Mukherjee>

8. The second edition of this book contains the poem "The Author to Her Book", and in one entry the author excoriates people "Who says my hand a needle better fits". For 10 points each:

[10] Name this volume of poetry published in 1650, at first attributed only to "A gentlewoman in those parts". It also includes "Upon the Burning of Our House, July 10th, 1666".

ANSWER: *The **Tenth Muse, Lately Sprung up in America** [or **Several Poems Compiled with Great Variety of Wit and Learning**, Full of Delight, Wherein especially is Contained a Complete Discourse and Description of the Four Elements, Constitutions, Ages of Man, Seasons of the Year, together with an exact Epitome of the Four Monarchies, viz., The Assyrian, Persian, Grecian, Roman, Also a Dialogue between Old England and New, concerning the late troubles]*

[10] This female Puritan poet, who claimed that her "love is such that Rivers cannot quench" in "To My Dear and Loving Husband", wrote *The Tenth Muse Lately Sprung Up in America*.

ANSWER: Anne Dudley **Bradstreet** [or Anne **Dudley**]

[10] This much later American poet wrote an "Homage to Mistress Bradstreet" in 1956. His other works include a collection of 385 poems about Henry and Mr. Bones called *The Dream Songs*.

ANSWER: John Allyn **Berryman**

<Mukherjee>

9. During his rule, he referred to himself as "Duke and Prince of the Franks" rather than as a king. For 10 points each:

[10] Identify this victor at Avignon and the River Berre in 737, the grandfather of Charlemagne.

ANSWER: **Charles Martel** [or **Charles the Hammer**; prompt on "Charles"]

[10] Charles Martel's most important military victory came at this 732 battle, in which his Frankish army turned back a Moorish invasion led by Abdul Rahman Al Ghafiqi.

ANSWER: Battle of **Tours** [or Battle of **Poitiers**]

[10] Another eighth-century Carolingian ruler made this land grant, which created the Papal States.

ANSWER: the **Donation of Pepin**

<Thompson>

10. This philosopher was the first to describe change in terms of a potentiality becoming actuality within a primary substance, such as a potentially-hot log becoming actually hot upon burning. For 10 points each:
[10] Name this philosopher who devised ten categories and divided the reasons for an object's unique existence into formal, material, efficient, and final causes.

ANSWER: Aristotle [or Aristoteles of Stagyra]

[10] In a namesake work, Aristotle described this thing as the first actuality of a plant, animal, or human, allowing for second actualities like nutrition and sense. Plato's *Phaedo* argues that it is immortal, unlike the body it is paired with.

ANSWER: the soul [or anima; or psyche; or psuche; do not accept "heart" or "mind"]

[10] Aristotle's *Nicomachean Ethics* admits that unlucky people are unlikely to exist in this state of happiness caused by "doing well and living well."

ANSWER: eudaimonia

<Jackson>

11. In the *Neue Zeitschrift für Musik*, this composer represented different aspects of his personality with the characters Florestan and Eusebius. For 10 points each:

[10] Name this German Romantic composer of *Dichterliebe* and *Papillons*, whose wife Clara was also an accomplished pianist.

ANSWER: Robert Schumann

[10] This work by Schumann, his Opus 9, consists of twenty short movements, including ones depicting Florestan and Eusebius. It features a musical cryptogram spelling the letters A-S-C-H.

ANSWER: Carnaval

[10] Schumann's *Scenes from Childhood* includes this frequently performed piano piece that depicts a youthful reverie.

ANSWER: "Traumerei" [or "Dreaming"]

<Thompson>

12. The protagonist of this work is undone when a single leaf from a linden tree falls onto his back. For 10 points each:

[10] Name this poem which ends with a feast at the great hall of King Etzel, where lots of Burgundians are murdered to avenge the protagonist's death.

ANSWER: Nibelungenlied [or *The Song of the Nibelungs*]

[10] This hero is killed by a spear thrown by Hagen in the *Nibelungenlied*. He gains the ability to understand the bird language after drinking the blood of Fafnir.

ANSWER: Sigurd [or Siegfried; or Sivard Snarensven]

[10] Sigurd drinks an "Ale of Forgetfulness" to forget Brynhildr, one of these women who in the Njals saga decide who will die at the Battle of Clontarf and then transport the dead warriors to Valhalla.

ANSWER: valkyries [or walkure]

<Gupta>

13. The protagonist is disappointed to find out that a picture of a beautiful knight on horseback actually depicts Joan of Arc, and later becomes intrigued by a Guido Reni painting of St. Sebastian. For 10 points each:

[10] Identify this 1948 novel in which Kochan attempts to fall in love with Sonoko but is ultimately unsuccessful at repressing his homosexuality.

ANSWER: Confessions of a Mask [or Kamen no Kokuhaku]

[10] This similarly-closeted Japanese author wrote *Confessions of a Mask* and the *Sea of Fertility* tetralogy before leading his "Shield Society" in a failed coup that resulted in him committing seppuku.

ANSWER: Yukio Mishima [or Kimitake Hiraoka; accept the constituent parts of either name in either order]

[10] The club-footed Kashiwagi appears in this Mishima novel, in which the acolyte Mizoguchi's obsession with destroying beauty eventually leads him to burn down the title building.

ANSWER: *The Temple of the Golden Pavilion* [or Kinkaku-ji]

<Carson>

14. Ron Fouchier was prevented by the National Science Advisory Board for Biosecurity from publishing the details of how he made this virus highly contagious in ferrets. For 10 points each:

[10] Identify this virus that virologists like Robert G. Webster have warned may become pandemic. It may spread through smuggled waterfowl.

ANSWER: Influenza A virus subtype H5N1 [or Bird Flu; or Avian Influenza; or A(H5N1) HPAI(H5N1); prompt on just "influenza" or "flu"]

[10] In February 2012, a meeting at the Geneva headquarters of this organization announced that the H5N1 research would eventually be published. This UN organization is headed by Margaret Chan, and it once helped eliminate smallpox.

ANSWER: World Health Organization [or WHO; or Organisation Mondiale de la Santé]

[10] This government organization, led by Francis Collins, paid for Fouchier's research on H5N1. It is broken into 27 smaller agencies covering specialties like cancer and drug abuse and operates the NLM.

ANSWER: National Institutes of Health [or NIH]

<Bentley>

15. Identify the following about some Roman offices, for 10 points each.

[10] Two men held this office for a period of one year. The holders of this office had command over the army and presided over the Senate, and each could veto his colleague.

ANSWER: consuls [or the consulship]

[10] One of the most notable holders of the position of censor was this "unshorn" man, who sought to maintain the *mos maiorum*. He supported the *Lex Orchia* to curb luxuries and once dropped figs on the floor of the Senate to make a point.

ANSWER: Marcus Porcius Cato the Elder [or Cato Censorious; or Cato Sapiens; or Cato Priscus; or Cato Major; or Cato the Censor; or Cato the Wise; or Cato the Ancient]

[10] Although holders of this office investigated murders during Rome's regal period, they more commonly dealt with finances. Holders of this office, the first in the *cursus honorum*, had to be at least thirty following the reforms of Sulla.

ANSWER: quaestor

<Bentley>

16. Mons Hadley is one massif on this object whose surface also contains the Sea of Tranquility. For 10 points each:

[10] Name this only known satellite of the Earth. Channel-like structures on this object are known as rilles.

ANSWER: **moon** [or **Luna**]

[10] Both John Adams and Urbain LeVerrier worked on the secular acceleration of the Moon and co-discovered this planet. Cubewanos are Kuiper Belt objects that have precise fraction orbital resonances with this planet.

ANSWER: **Neptune**

[10] This large atmospheric storm found in Neptune's Southern Hemisphere is similar to Jupiter's Great Red Spot. The first one of these spots was observed by Voyager 2.

ANSWER: **Great Dark Spot**

<Hothem>

17. This man was assisted in shredding documents by his secretary Fawn Hall and was, like Secretary of Defense Caspar Weinberger and National Security Adviser John Poindexter, investigated by the Tower Commission. For 10 points each:

[10] Identify this lieutenant colonel who was charged with several felonies for diverting funds in a manner previously outlawed by the Boland Amendment.

ANSWER: Oliver Laurence "Ollie" **North**

[10] North was implicated in this scandal during Ronald Reagan's presidency, in which officials were accused of sending money received from clandestine arms sales to certain rebel groups in Nicaragua.

ANSWER: **Iran-Contra** affair [accept synonyms for "affair"]

[10] Reagan famously referred to the Iran-Contra scandal during the State of the Union Address with this three-word phrase, which acknowledged that wrongdoing happened while evading personal responsibility.

ANSWER: **"mistakes were made"**

<Kandlikar>

18. Schrock developed a Molybdenum-HIPT complex that can do this artificially. For 10 points each:

[10] Identify this process which commonly occurs in root nodules, in which a particular diatomic element's super-strong triple bond is cleaved by rhizobia.

ANSWER: **nitrogen fixation**

[10] This molecule with formula NH_3 is the product of nitrogen fixation.

ANSWER: **ammonia** [do NOT accept "ammonium"]

[10] This process, in some ways the inverse of nitrogen fixation, transforms nitrogen-oxygen compounds back into diatomic nitrogen gas.

ANSWER: **denitrification** [do NOT accept "nitrification"]

<Mukherjee>

19. The right-most figure in this work is wearing a yellow-and-black striped shirt and reaches into his back pocket for a hidden object. For 10 points each:

[10] Identify this painting in which a man holds up two fingers to indicate what the mark is looking at. A backgammon table can also be seen in this painting.

ANSWER: *The Cardsharps* [do not accept "Cardsharks"]

[10] *The Cardsharps* is a painting by this Italian Baroque artist, known for his use of chiaroscuro and for painting works like *The Calling of Saint Matthew*.

ANSWER: Michelangelo Merisi da Caravaggio

[10] In one of Caravaggio's versions of this scene, Jesus wears a red robe and reaches his right hand across the table. The other three figures include Luke, who stretches his arms out wide on the right side of this work.

ANSWER: The Supper at Emmaus [or Christ at Emmaus; accept synonyms for "Supper" like "Dinner"; do not accept "Road to Emmaus"]

<Bentley>

20. This poet lamented how "the curfew tolls the knell of parting day" at the beginning of one poem and coined the phrase "where ignorance is bliss, 'tis folly to be wise" in his "Ode on a Distant Prospect of Eton College". For 10 points each:

[10] Name this author of "Ode on the Death of a Favorite Cat", who wonders if "some Cromwell guiltless of his country's blood" rests in the title location of his "Elegy Written in a Country Churchyard".

ANSWER: Thomas Gray

[10] The speaker of Gray's "Elegy" notes that despite "the boast of heraldry" and "the pomp of power", these things "lead but to the grave". This three-word phrase also titles a Stanley Kubrick war film.

ANSWER: "paths of glory"

[10] In the fifteenth stanza of Gray's "Elegy", the speaker wonders if "some mute inglorious" version of this poet "here may rest". Wordsworth's poem "London, 1802" asserts that this author of *Areopagitica* "shouldst be living at this hour".

ANSWER: John Milton

<Gioia>

21. The protagonist of this work is frequently visited by his attorney, Roman Vissarionovich, who never ends up providing him any help. For 10 points each:

[10] Identify this novel also featuring a jailer named Rodion. The protagonist, Cincinnatus C., is accused of committing "gnostical turpitude".

ANSWER: Invitation to a Beheading [or Priglaseniye na kazn]

[10] *Invitation to a Beheading* is a novel by this Russian author of *Pnin* and *Pale Fire*, who wrote about Humbert Humbert in *Lolita*.

ANSWER: Vladimir Vladimirovich Nabokov

[10] This character from *Lolita*, who wrote the play *The Little Nymph*, briefly kidnaps Lolita from her hospital room. Humbert murders this man near the end of the novel.

ANSWER: Clare Quilty [accept either underlined answer]

<Bentley>

22. This organization killed thousands of Polish officers in the Katyn Forest Massacre, and some people believe Sergei Kirov was killed by agents of this organization. For 10 points each:

[10] Name this Soviet secret police organization, the predecessor to the KGB. One of its most notorious leaders was Lavrenty Beria.

ANSWER: NKVD [or People's Commissariat for Internal Affairs; or Narodnyy komissariat vnutrennikh del]

[10] The NKVD helped carry out Stalin's Great Purge, in which several dissidents were shipped off to these Soviet Labor camps. Solzhenitsyn gave an account of living in one of these.

ANSWER: Gulags

[10] Joseph Stalin purged this Old Bolshevik and author of *The ABCs of Communism*. He was a longtime editor of *Pravda* and fell out of favor for criticizing collectivization.

ANSWER: Nikolai Bukharin

<Mukherjee>

23. These organisms are able to synthesize their own complex organic compounds and serve as producers in the food chain. For 10 points each:

[10] Name this type of organism, which, unlike heterotrophs, do not need to feed on other organisms.

ANSWER: autotroph

[10] Chemoautotrophs that live around deep sea vents can use this foul-smelling gas as their primary source of energy. Since those bacteria are the primary producers for their ecosystem, all deep-sea creatures rely on them.

ANSWER: hydrogen sulfide [or H₂S]

[10] Plants are autotrophs that use this process to create organic compounds. It involves the use of chlorophyll to convert light energy into chemical energy.

ANSWER: photosynthesis

<Mukherjee>