

1. Living in this city is compared to "loving a woman with a broken nose" in an essay calling it a "city on the make". That essay was written by a man who wrote about Frankie Machine in a novel set here called *The Man with the Golden Arm*. One novel set in this home of Nelson Algren ends with three cries that this city "will be ours!" and depicts it as being home to a Durham fertilizer plant and Brown's (*) slaughterhouse, where Jurgis Rudkus works. Another work describes this city as a "tall bold slugger" that is "flinging magnetic curses" and calls it the "Player with Railroads" and "Hog Butcher for the World". For 10 points, name this "City of the Big Shoulders", the setting of *The Jungle* and the subject of a Carl Sandburg poem.

ANSWER: Chicago, Illinois

<Thompson>

2. This concept was linked with a "lack of consensus" and extended into a framework incorporating cultural goals and institutionalized means to provide the basis for Strain Theory by Robert Merton. Organic solidarity was posited to preclude this concept by a man who identified it as the inevitable consequence of the regimented mechanical solidarity created by the industrial revolution. That thinker built on his earlier (*) *Division of Labor in Society* in the tract popularizing this term, which contrasted it with the "fatalistic" form of a certain action. Emile Durkheim's *Suicide* describes, for 10 points, what term for a situation in which social norms disintegrate after an individual loses their ties to society, whose name derives from the Greek for "without law?"

ANSWER: anomie

<Ray>

3. One of the earliest accounts of his life was Thomas Chilton's "autobiography". As a youth, he got into an argument with a classmate over a spilled bottle of ink, leading him to flee his home for three years. While in Congress, this "gentleman from the cane" argued against supporting a Navy widow in the "Not Yours To Give" speech. He served under John Coffee in the Creek War. William Carroll helped defeat this Congressman, leading this man to exclaim, "you may all go to Hell". He was courted by the Whigs after breaking with his fellow statesman (*) Andrew Johnson. Interest in this figure was revived in a 1950's Disney series where he wore a coonskin cap. For 10 points, name this Tennessee frontiersman who died at the Alamo.

ANSWER: David "Davy" Crockett [prompt on "King of the Wild Frontier"]

<Bentley>

4. Academically-inclined assistants hired by this man, including Mike Meese and H.R. McMaster, are known as his "guys." In a March 2010 testimony before the Senate Armed Services Committee, he controversially asserted that the Israeli-Palestinian conflict and "perceived favoritism towards Israel" harm U.S. interests in the Middle East. This man and Ryan Crocker were compelled to testify before Congress in 2007 by legislation supporting a massive increase in the activity of MNF-I. He was given one job after (*) Stanley McChrystal's interview critical of Joe Biden was published in *Rolling Stone* and another after Robert Gates's retirement led to a promotion for Leon Panetta. For 10 points, name this former top commander of U.S. forces in both Iraq and Afghanistan who now serves as director of the CIA.

ANSWER: David Howell Petraeus

<Bentley>

5. The arrangement of atoms in this substance is governed by the Bernal–Fowler rules. This material can be colored by ogives, and some examples of it exhibit moulins and bergschrunds. Firn is an intermediate in the formation of the most common terrestrial form of it. A form of mechanical weathering named for it occurs when soil heaves and creates lenses within rock pores, a process known as (*) wedging. One method of reconstructing the climate record is to extract and analyze "cores" of this substance. Strong upward air currents drive the repeated layering of this material onto condensation nuclei in clouds before finally falling as hail. For 10 points, name this material which occurs in temperatures below 32 degrees Fahrenheit and is less dense than its liquid form.

ANSWER: water ice [accept snow, frost, hail, glaciers, icebergs, etc before mention; prompt on "water"]

<Lasker>

6. One of this composer's orchestral works begins with a fanfare that he heard every day while vacationing next to a cavalry barracks in Rome. This composer paid homage to Mozart in the first movement of his *Serenade for Strings* and in his fourth orchestral suite, *Mozartiana*. Nadezhda von Meck was the longtime patron of this composer, whose orchestral works include *Capriccio* (*) *Italian*. In 1958, Van Cliburn's performance of this composer's first piano concerto won a competition held in Moscow named for this composer. Another of his orchestral works includes dramatic cannon fire representing Napoleon's invasion of Russia. For 10 points, name this Russian composer of the *1812 Overture*.

ANSWER: Pyotr Ilyich Tchaikovsky

<Magin>

7. This man portrayed bodies hanging from a gallows as dancers accompanied by "Sir Beelzebub" and his fiddle in his "Ballade of the Hanged". He wrote a letter to Paul Demy describing the process by which a poet disorders all his senses in order to become a seer. One of his works contains sections titled "Bad Blood" and "The Impossible" and begins "Once, if my memory serves me well". The central figure of another of his poems sees "nets where a whole Leviathan was rotting" after "gaudy Redskins" murder its (*) crew; that figure later laments its freedom and wishes to sink. He gave up poetry for gun-running and travel at age 20 after a stormy affair with Paul Verlaine. For 10 points, name this French poet of *A Season in Hell* and *The Drunken Boat*.

ANSWER: Arthur Rimbaud [or Jean-Nicolas-Arthur Rimbaud]

<Thompson>

8. One figure from this location's folklore is a deformed beggar who carries a vapor-emitting calabash and walks on an iron crutch. In one story from this place, an oxhide-wearing herder annually crosses a magpie bridge to reunite with his love. This region's mythology says that a half-snake female figure created mankind from clay, while the world itself was made from the body of an 18,000-year-old-giant who hatched from an egg. In this country's mythology, an era of scorching heat ended when an (*) archer shot down nine suns. Dragons from this country lived in oceans and operated outside a strict celestial bureaucracy headed by the Jade Emperor. For 10 points, name this country, home to the mythical Xia Dynasty, whose mythology was folded into Taoism.

ANSWER: China [or Republic of China; or People's Republic of China; or Zhongguo]

<Jackson>

9. Growing up, this politician ran his father's plantation on Andros Island in the Bahamas. He surrendered the Treaty Ports to Ireland in an agreement reached with Eamon de Valera. Under this Prime Minister, Britain adopted the first peacetime conscription of soldiers. This man's half-brother shared the Nobel Peace Prize with Charles Dawes for organizing the Locarno Pact. One of this man's own agreements was co-signed with Edouard (*) Daladier. This man presided over the "phony war", and he succeeded Stanley Baldwin as Prime Minister. For 10 points, name this British Prime Minister whose policy of appeasement led him to proclaim he had reached "peace for our time" when he signed the Munich Agreement with Adolf Hitler.

ANSWER: Arthur Neville Chamberlain

<Bentley>

10. One method of detecting the distance between a pair of these species is the PELDOR experiment. Introducing species like PNO, DMPO and TEMPO to short-lived versions of these species creates nitroxide-based persistent ones, which can then be imaged by Electron Paramagnetic Resonance Spectroscopy. Halogenation reactions with these species as intermediates tend to lack stereospecificity. These species are created by homolysis when a halogen-halogen or halogen-carbon bond is cleaved by (*) UV light, which explains why CFCs are damaging. Mitochondria generate the superoxide one, which damages DNA. They are reactive because they violate the octet rule, often having only 7 valence electrons. For 10 points, name these compounds with an unpaired electron.

ANSWER: free radical [prompt on "spins" before "superoxide"; prompt on "electrons" before mention]

<Mukherjee>

11. A hospital was built in this city by Adud al-Dawla during a struggle between the Shia-backed Buyids and the puppet Sunni ruler al-Tai. It was surrounded by two tiers of walls, and two of its four gates led to Kufa and Khorasan. This city fell when a vizier advised defending it by having women and children throw stones at attackers. During that battle the ink from its destroyed House of Wisdom turned a nearby river black. After its capture, this city's ruler was (*) wrapped in a carpet and trampled to death to avoid shedding royal blood. The death of that ruler, al-Mustasim, heralded the start of the Ilkhanate after Hulagu Khan sacked this city in 1258. For 10 points, name this capital of the Abbasids and center of medieval Islam, a metropolis on the Tigris River.

ANSWER: Baghdad

<Weiner>

12. For the past 26 years, Ruben Enaje has conducted unsanctioned reenactments of this event in the Philippines. Tradition holds that a repentant figure at this event was named Dismas. As it took place, an earthquake happened and a curtain was torn. At this event, several officers cast lots for the (*) clothing of the central figure. Just before it, the central figure walked down the Via Dolorosa. This event proceeded after people demanded Barabbas to be released. Near the end of this event, its central figure proclaimed "My God, my God, why have you forsaken me?" before his body was placed in the custody of Joseph of Arimathea by order of Pontius Pilate. For 10 points, name this event that took place on Mount Calvary and is commemorated on Good Friday.

ANSWER: Crucifixion of Jesus Christ [or death of Jesus; or Jesus nailed to the cross; or Good Friday before mentioned; or the Passion of the Christ]

<Cheyne>

13. The stable radius of one of these structures is equal to 1.25 times their mass to the one-third power. One theory of the structure of these objects describes how those with 2, 8, and 20 substituents are unusually stable; that model is the shell model. Hyperfine splitting is caused by the magnetic moment of these entities. Deformed and unusually long-lived ones might be found in the Island of (*) Stability, and stable ones are said to have a magic number of constituents. Their binding energy can be calculated by finding the equivalent energy of their mass defects, and they are made of baryons held together by the strong force. For 10 points, identify these structure which contains protons and neutrons and is surrounded by electrons, the center of an atom.

ANSWER: atomic nucleus [prompt on “atoms”]

<Mukherjee>

14. Harrison Birtwistle composed an opera about the "mask" of this character. In another opera, this character sings "Che farò" to lament the death of his lover. An operetta named for this character features a love song buzzed by a fly and a guardian of morality named Public Opinion. That operetta lampooned a 1762 opera by Christoph (*) Gluck in which this character gains entrance to his intended destination by soothing the Furies. Claudio Monteverdi's first opera is named for this character, who also names a Jacques Offenbach operetta about his journey to the underworld. For 10 points, name this musician from Greek myth who descended into Hades to attempt to rescue his wife Eurydice.

ANSWER: Orpheus [or Orfeo; or Orfée]

<Thompson>

15. One character in this play wins an argument by completing his opponent's lines with the phrase “lost his bottle of oil”. This play opens with its two central characters arguing over which humorous complaint one of them should use. In one scene in this play, a character is frightened by a supposed appearance of the monster Empusa. Later in this play, an encounter with Aeacus prompts that character to trade his costume, a lion skin, and a club to his servant (*) Xanthias. This play's title figures appear only as a chorus during a crossing of the river Styx, chanting the line “brekekekex koax koax”. For 10 points, identify this comedy in which Dionysus travels to the underworld and judges a contest between Aeschylus and Euripides, a play by Aristophanes.

ANSWER: *The Frogs* [or *Batrachoi*]

<Carson>

16. These cells contain the surface protein Izumo, which binds to CD9, and their genomes are bound to protamines. One specialized organelle in these cells contains hyaluronidase and is derived from the Golgi apparatus. These cells contain the acrosome, as well as a ring of mitochondria around their midpiece and centrioles behind their posterior neck. During development four of them are connected to each other by cytoplasmic (*) bridges. Sertoli cells are responsible for nursing these cells, which after synthesis travel to the epididymis. They are created by meiosis in the testes, and after all divisions are complete they grow a long flagellum. For 10 points, name this male gamete cell which combines with an egg to form a zygote.

ANSWER: spermatozoon [or spermatozoa; or spermatids; or sperm cells]

<Mukherjee>

17. When one character in this work swears that the soldier Le Fever will never die, an angel sheds a tear to blot out the oath. Its narrator lists the 900 streets of Paris and leaves two chapters blank for the reader to fill in details. Another character displays a map of Namur whenever a widow asks where he was wounded and often whistles "Lillibullero". Its longest chapter is a story credited to Hafen Slawkenbergius about the (*) "Long-Nosed Stranger from Strasbourg", related by a character whose son's nose was flattened at birth by Dr. Slop's forceps. Reenacting battles with Corporal Trim is the "hobby-horse" of Uncle Toby, who finally witnesses the title character's birth about halfway into this book. For 10 points, name this novel by Laurence Sterne.

ANSWER: *The Life and Opinions of Tristram Shandy, Gentleman*

<Gioia>

18. This country recovered from an earlier wartime defeat under the "aristocratic" government of Nicolas de Pierola. One rebel group in this country was opposed by local militias called *rondas* and carried out the Lucanamarca massacre before their leader, Abimael Guzman, was captured. An anti-government faction in this country took over its (*) Japanese embassy in 1996; that group, the MRTA, is named for an older revolutionary in this country, Tupac Amaru. This country gained its independence at the Battle of Ayacucho. Ancient civilizations based in this country include the Nazca. This country is home to the Shining Path, and was once ruled by a president of Japanese descent named Alberto Fujimori. For 10 points, name this country home to Machu Picchu.

ANSWER: Republic of Peru

<Bentley>

19. In one of this artist's paintings, three angels read a book on the roof above the title scene as angels and men embrace in the foreground. A woman holds a giant axe and grabs the hair of the other title figure in his *Pallas and the Centaur*. Two women pull on the hair of an unjust judge while a naked representation of truth points to heaven in this artist's *Calumny of Apelles*. He painted *The* (*) *Mystical Nativity* in reaction to Savonarola. Mercury, who symbolizes May, can be seen to the left of the three Graces in a painting by this artist in which Venus stands on a bed of flowers. In another work, Zephyr blows a goddess on a seashell to shore. For 10 points, name this artist of *La Primavera* and *The Birth of Venus*.

ANSWER: Sandro Botticelli [or Alessandro di Mariano di Vanni dei Filipepi]

<Bentley>

20. The third section of this work discusses the German perversion of socially conscious French literature. This work discusses the immaturity of the efforts of Saint-Simon, Fourier, and Owen while expressing solidarity with the Agrarian Reformers and Chartists. A ten-point program advocated in this work includes the free availability of education and the abolition of nations, family, and (*) religion. This work uses the dismantling of feudalism and rise of modern industry to illustrate that "the history of all hitherto existing society is the history of class struggles." Opening by describing a specter haunting Europe, for 10 points, name this book that calls for the workers of the world to unite, written by Marx and Engels.

ANSWER: *The Communist Manifesto* [or *The Manifesto of the Communist Party*; or *Manifest der Kommunistischen Partei*]

<Gupta>

21. The shortest superstring problem is reduced to this problem by considering overlaps between pairs of strings. A blind method of solving this problem would search through n minus one factorial over 2 possibilities. Dorigo originally tested his ant colony optimization method on this problem, which can also be solved using insertion heuristics and k-opt methods. A greedy algorithm to solve this problem simply (*) moves to the nearest neighbor with smallest weight. This NP-hard problem is the equivalent of finding a Hamiltonian cycle on a complete weighted graph with minimum weight. For 10 points, name this optimization problem which seeks the minimum distance that the namesake figure would have to go to visit every city on a given map exactly once.

ANSWER: travelling salesman problem [or TSP]

<Mukherjee>

22. This character is initiated into the “The Sons of Charm” after spending several years at St. Xavier's School and studying with a trader who teaches him to play the "jewel game". He has a recurring dream of a red bull in a green field. He first appears in front of a museum, sitting atop a huge cannon. This character is dubbed “Friend of All the World” before he steals luggage containing incriminating letters from a group of (*) Russians. Colonel Creighton recruits this character to be one of the “chain men” under Hurree Babu, who allows him to continue his journey with a Tibetan lama while also working as a British agent. For 10 points, name this Irish orphan who becomes involved in the Great Game in a namesake novel by Rudyard Kipling.

ANSWER: Kimball "Kim" O'Hara [accept any of the three underlined portions]

<Gioia>

23. One ruler of this kingdom was personally crowned by William of Sabina when he established a capital at Nidaros. During medieval times, this state established colonies at Lambay and Waterford and lost a war against Richard “Strongbow.” This country ruled two areas later annexed by the Kingdom of Alba and Scotland; those were, respectively, the Hebrides and Orkney. One ruler of this country attempted to mount an invasion through (*) York and saw his contingent defeated by Harold Godwinson at Stamford Bridge. For 10 points, identify this kingdom whose rulers held possessions in Ireland after the Viking raids and included Harold Hardrada and Haakon the Old.

ANSWER: Kingdom of Norway [or Kongeriket Norge]

<Foster>

24. This country's Oka crisis was a land dispute with indigenous people. In a harbor of this country, the accidental collision of the *Imo* with the docked ship *SS Mont Blanc* triggered the largest non-atomic explosion in history. That occurred seven months after this nation's troops captured Vimy Ridge in World War I. This nation failed to amend its constitution with the (*) Meech Lake Accord. A class of part-indigenous people in this country launched the Northwest Rebellion and the Red River Rebellion under Louis Riel. The Métis (may-TEE) live in this country whose first Prime Minister, John Macdonald, took office after confederation in 1867. For 10 points, name this North American nation where the Mounties still patrol Ottawa.

ANSWER: Canada

<Jackson>

1. In this play's second act, a policeman named Amusa is horrified when Jane and her husband dress up in native costumes for a ball. For 10 points each:

[10] Identify this play in which British colonial administrator Simon Pilkings messes up the cosmic order of the universe by preventing Elesin's ritual suicide.

ANSWER: **Death and the King's Horseman**

[10] This Nigerian playwright of *The Beatification of Area Boy* and *Death and the King's Horseman* wrote about the Yoruba chieftain Baroka's attempts to win the hand of Sidi from the more modern Lakunle in his play *The Lion and the Jewel*.

ANSWER: Wole **Soyinka** [or Akinwande Oluwole **Soyinka**]

[10] Soyinka wrote two plays about the charlatan preacher Brother Jero, the title of the second of which refers to Jero and his church undergoing one of these events. Another work titled for them was written by Ovid and includes such tales of transformation as that of Apollo and Daphne.

ANSWER: **metamorphosis** [or **Metamorphoses**; or **Jero's Metamorphosis**]

<Carson>

2. The Pilgrimage of Grace was a reaction against this event. For 10 points each:

[10] Identify this action in which the Privy Council and the Court of Augmentations received approximately 175,000 pounds as a result of the plunder of the dioceses in Northumberland and Lancashire.

ANSWER: **Dissolution** of the **Monasteries** [accept equivalents for "dissolution"]

[10] The Dissolution of the Monasteries occurred under the reign of this English monarch during his long quest to divorce Catherine of Aragon. He was served by Thomas More and Thomas Boleyn.

ANSWER: **Henry VIII** [prompt on "Henry"]

[10] One of Henry's most influential advisors was this Archbishop of York who also organized a meeting at the Field of Cloth of Gold at which Henry formed a brief alliance with Francis I of France.

ANSWER: Thomas **Wolsey**

<Foster>

3. One composer from this country wrote *Love, the Magician* and music for the ballet *The Three-Cornered Hat*. For 10 points each:

[10] Name this country, also the homeland of Isaac Albeniz. An opera singer from this country was one of the "Three Tenors" along with Pavarotti and Carreras.

ANSWER: **Spain** [or **España**]

[10] Spanish composer Francisco Tarrega transcribed many pieces by classical composers like Bach and Mozart for this instrument. It was played by Andres Segovia, and its electric type was developed by Les Paul.

ANSWER: the **guitar** [or **guitarra**]

[10] This Spain-inspired piece by Rimsky-Korsakov contains five movements, including a set of variations on a theme played by the horns in between two similar Alboradas.

ANSWER: **Capriccio Espagnol** [or **Capriccio on Spanish Themes**]

<Bollinger>

4. [Note to Moderator: Please read the second part slowly]

Identify some things about working with periodic functions, for 10 points each.

[10] For a periodic function, this value is the height of the peak at its highest point. For a wave in physics, this value is used to find the power transmitted.

ANSWER: **amplitude** [prompt on "A"]

[10] Consider the periodic function sine of the quantity 24 times pi times x end quantity. What is its period, expressed as a proper fraction?

ANSWER: **one-twelfth** or **1/12**

[10] Harmonic analysis heavily involves the use of these mathematical constructs, which are decompositions of a periodic function into a sum of sines and cosines.

ANSWER: **Fourier** series [or **Fourier** expansions or **Fourier** decomposition; do NOT accept "Fourier transform"]

<Orth>

5. This man is first encountered while playing a lyre as the rest of the herdsmen follow their oxen. For 10 points each:

[10] Name this Trojan whose seduction by Aphrodite is told in the fifth Homeric Hymn.

ANSWER: **Anchises**

[10] The result of that union was this man whose adventures are recounted in an epic by Virgil.

ANSWER: **Aeneas**

[10] After years of adventuring, Aeneas meets up with his father one last time in this location, a blissful part of the Greek afterlife.

ANSWER: **Elysium** [or **Elysian Fields**; prompt on "Hades"; prompt on "Greek underworld"]

<Wynne>

6. After New Mexico, this state became the second majority-minority state in the U.S. For 10 points each:

[10] Name this state whose unique demographics resulted from Asian immigration and a sizable indigenous population.

ANSWER: **Hawaii**

[10] Many early Asian immigrants to Hawaii worked as laborers growing this cash crop, which dominated Hawaii's economy in the late 19th century and whose cultivation was controlled by the "Big Five" families.

ANSWER: **sugarcane**

[10] Many native Hawaiians were expelled from this sixth-largest Hawaiian island after it was purchased by Dole to become the largest pineapple plantation in the U.S.

ANSWER: **Lana'i**

<Haddad-Fonda>

7. In this technique, the scattering angle is related to the unit cell orientation and spacing according to laws developed by Max von Laue. For 10 points each:

[10] Identify this technique, which was used by Rosalind Franklin to determine the structure of DNA and the tobacco mosaic virus. It is most commonly used nowadays to find the exact structure of proteins.

ANSWER: **X-ray crystallography** [or **X-ray diffraction**]

[10] This law states that 2 times the spacing times the sine of the incident angle is equal to an integer multiple of the incident wavelength. It is important to understanding X-ray diffraction.

ANSWER: **Bragg's** law

[10] Daniel Schectman won a Nobel Prize for discovering these unusual crystals, which have order but no periodic structure. Some have five-fold symmetry.

ANSWER: **quasicrystals** [prompt on "crystals"]

<Mukherjee>

8. For 10 points each, identify some things about the landmark case *Mapp v. Ohio*, which applied the exclusionary rule to the states.

[10] *Mapp v. Ohio* extended this constitutional amendment's prohibition against unreasonable search and seizures to the states.

ANSWER: **Fourth** Amendment

[10] *Mapp* expanded the Fourth Amendment precedent set in this 1914 case about illegal lottery, in which the Court first applied the exclusionary rule to the federal judiciary.

ANSWER: **Weeks** v. *United States*

[10] *Mapp* overturned the 1949 case of *Wolf v. this state*, in which the Court had declined to incorporate the exclusionary rule to the states. This state's prohibition on gay rights ordinances was the subject of the 1996 case *Romer v. Evans*.

ANSWER: **Colorado**

<Thompson>

9. This work's author spends his honeymoon researching it in the Vatican archives while his wife is being admired and befriended by the painter Naumann and the poet Will Ladislav. For 10 points each:

[10] Name this fictional scholarly book attempting to synthesize legends across every culture that is left unfinished at the death of its author, the elderly reverend Edward Casaubon.

ANSWER: *The **Key to All Mythologies***

[10] After Casaubon's death, his widow Dorothea Brooke renounces his fortune and marries Ladislav, thus providing a relatively happy ending to this 1872 novel.

ANSWER: **Middlemarch**: *A Study of Provincial Life*

[10] *Middlemarch* was the magnum opus of this English author of *Silas Marner* and *Adam Bede*.

ANSWER: George **Eliot** [or Mary Ann/Marian **Evans**]

<Gioia>

10. Identify the following about some art terms from the Italian Renaissance, for 10 points each.

[10] This medium, described in detail in a work by Cennino Cennini, involves using egg yolk to bind pigments. It was largely supplanted by oil painting around 1500.

ANSWER: egg **tempera**

[10] All lines converge into one to three vanishing points in the linear form of this technique, which provides the illusion of depth for a two-dimensional painting.

ANSWER: linear **perspective**

[10] This term comes from the Italian word for "obscure". It was frequently employed by Caravaggio and is characterized by works with a mainly dark tonality.

ANSWER: **tenebrism** [accept word forms like **tenebrist**]

<Bentley>

11. When this character sees a pair of women chased by monkeys, he shoots the monkeys, only to realize that they were the women's lovers. For 10 points each:

[10] Name this student of Dr. Pangloss, the title character of a satire of Leibniz's optimism by Voltaire.

ANSWER: **Candide**

[10] Candide is enamored of this daughter of Baron Thunder-ten-Tronckh. Candide chases her around throughout the novel, and finds her in Constantinople after she has lost her beauty.

ANSWER: **Cunegonde**

[10] At the end of the novel, Pangloss suggests one last time that they live in the best of all possible worlds; Candide replies, "this is well said, but we must" perform this action.

ANSWER: "We must **cultivate our garden**" [or equivalents, like "**work in a garden**"; or "**make our garden grow**"; or "**grow our garden**", or "il faut **cultiver notre jardin**"]

<Bollinger>

12. Name these terms from social psychology, for 10 points each.

[10] Solomon Asch investigated this tendency for people to agree with an overwhelming majority, even if the individual knows the group to be wrong.

ANSWER: **conformity**

[10] This portmanteau was coined by Irving Janis to denote situations in which the desire to reach a consensus overrides individual members' ability to critically examine all possible options, leading to suboptimal decision-making.

ANSWER: **groupthink**

[10] Claude Steele explored this situation in which members of a group confirm a negative belief about that group only after being told of that belief. For example, women who are told that women are bad at math then perform lower on math tests.

ANSWER: **stereotype threat**

<Wynne>

13. During this time period, Poland successfully captured Smolensk after the Battle of Klushino. For 10 points each:

[10] Identify this period which occurred in Russia after the death of Feodor I, which left the Rurikid Dynasty without an heir.

ANSWER: the **Time of Troubles** [or **Smutnoye Vremya**]

[10] During the Time of Troubles, several men took the name of this dead son of Ivan the Terrible. One of them managed to be crowned as tsar, but later had his ashes shot out of a cannon towards Poland after he died.

ANSWER: False **Dmitris**

[10] This successor to the first False Dmitri came to power with Polish support, but fought off a Polish invasion in 1609. His death saw the collapse of the unified tsardom until the rise of Mikhail Romanov.

ANSWER: Vasili **Shuisky** [or **Vasili IV**; prompt on "Vasili"]

<Foster>

14. This man's armless and headless *Walking Man* was created as a study for his *Saint John the Baptist Preaching*. For 10 points each:

[10] Identify this French sculptor, whose other work includes *The Thinker* and *The Gates of Hell*.

ANSWER: Auguste **Rodin**

[10] The title nude figure places his right hand on the top of his head in this work by Auguste Rodin. The central figure also bends his right knee forward, producing a sense of mental awakening.

ANSWER: *The **Age of Bronze*** [or *L'**Age d'airain***]

[10] After being commissioned by the Société des Gens de Lettres to create a monument for this man, Rodin visited Touraine to get a sense of his character. The final sculpture, where this writer's eyes were "lost in a dream", was ultimately rejected and ridiculed.

ANSWER: Honore de **Balzac**

<Bentley>

15. Answer some questions about circuits which contain devices in parallel, for 10 points each.

[10] These instruments are typically connected across a resistive element in parallel, unlike ammeters which are connected in series. This device measures the drop in potential between its two leads, and is often used in tandem with an ammeter.

ANSWER: **voltmeter** [prompt on "DMM" or "digital multimeter" or "multimeter"]

[10] The internal resistance of an ideal voltmeter takes on this value.

ANSWER: **infinity** [accept reasonable equivalents]

[10] Connecting a series of resistors of resistance R and 2R in a ladder-like structure creates a version of these electronic circuits, which take a binary code and transform it into a continuous signal.

ANSWER: **digital-to-analog** converter [or **DAC**; do NOT accept "analog-to-digital converter" or "ADC"]

<Mukherjee>

16. Several of this religion's celebrations are marked by carrying a hexagonal portable shrine with a phoenix carving at the top. For 10 points each:

[10] Name this religion, whose shrines contain vermilion-colored gates consisting of two vertical posts topped by two horizontal lintels.

ANSWER: **Shinto**

[10] A common instruction in this country is to be born Shinto and die Buddhist. The largest religion ever founded by a woman, Tenrikyo, is practiced in this country.

ANSWER: **Japan** [or **Nihon**-koku; or **Nippon**-koku]

[10] The Sacred Mirror is found in this Shinto shrine, which is dedicated to Amaterasu and is torn down and rebuilt every twenty years.

ANSWER: **Ise** Grand Shrine [or **Ise** Jingu]

<Gupta>

17. Identify the following about U.S. space exploration, for 10 points each.

[10] This program's achievements included Edward White making the first spacewalk on its fourth mission. Buzz Aldrin made an even longer spacewalk in the twelfth and final of these missions.

ANSWER: Project **Gemini** [or the **Gemini** program, etc.]

[10] NASA set up a namesake Accident Review Board in the wake of the fire that killed Edward H. White, Roger B. Chaffee and Gus Grissom during this mission.

ANSWER: **Apollo 1** [or **Apollo Saturn-204** or **AS-204**; prompt on just "Apollo"]

[10] Grissom had earlier been made command pilot on Gemini 3 after this fellow astronaut got sick.

Designated the "chief astronaut" of the Gemini program, he walked on the moon in Apollo 14 and was the second person in space after Yuri Gagarin.

ANSWER: Alan Bartlett **Shepard**, Jr.

<Bentley>

18. This character starts his financial empire by buying eggs for seven cents and selling them for five cents. For 10 points each:

[10] Name this literary character who starts out as a mess hall cook, but eventually creates a massive corporate syndicate that profits from bombing his own squadron.

ANSWER: **Milo Minderbinder** [accept either underlined portion]

[10] Milo Minderbinder convinces Colonel Cathcart to raise the number of combat missions at the end of this Joseph Heller novel, which focuses on Yossarian's disillusionment with World War II.

ANSWER: **Catch-22**

[10] Milo Minderbinder's syndicate helped inspire the sinister corporate network in this novel, whose characters Gerhardt von Goll and Major Marvy work for companies like IG Farben and General Electric. At its climax, Gottfried is sacrificed by Dominus Blicero.

ANSWER: **Gravity's Rainbow** [by Thomas Pynchon]

<Magin>

19. In one story, this student of Antisthenes spit in another man's face, claiming he could not find a worse place to spit. For 10 points each:

[10] Name this "Socrates gone mad" who also supposedly lived in a tub and wandered the daylight streets of Athens with a lantern searching for an honest man.

ANSWER: **Diogenes** of Sinope

[10] Diogenes was a member of this school, which preached askesis, a "practice" of thought that required one to be in accord with nature and reason to the point of undermining conventional wisdom.

ANSWER: **Cynicism**

[10] In a classic Cynic response to Plato's definition of humans as "featherless bipeds," Diogenes apocryphally presented one of these animals as "Plato's man!".

ANSWER: **plucked chicken** [or equivalents mentioning a **chicken without feathers**; prompt on answers mentioning a **bird** without feathers; although Diogenes would roll in his grave, prompt on "chicken"]

<Wynne>

20. One mechanism that leads to this kind of inheritance is haploinsufficiency, which occurs when both copies of a gene are active and required. For 10 points each:

[10] Name this type of allele which is usually denoted by a capital letter in a Punnett square. They usually override recessive genes.

ANSWER: **dominant** gene

[10] This type of dominance occurs when two alleles are both expressed at the same time. One example of this is roan coats in horses, and it is contrasted with incomplete dominance.

ANSWER: **co-dominance** [or word forms like **co-dominant**]

[10] This quality of a gene is the ability for it to express itself if present. For example, the gene for blue sclera has a low value for this parameter, because it exists in most of the population but few express it.

ANSWER: **penetrance** [or word forms like **penetrant**]

<Mukherjee>

21. This novel's protagonist and his classmates are convinced to enlist by the hypocrite Kantorek and are trained by the sadistic Corporal Himmelstoss, who later redeems himself by leading a trench charge and recovering Haie Westhus's body. For 10 points each:

[10] Identify this 1929 novel in which Paul Bäumer (BOY-mer) experiences the societal alienation and sense of futility caused by war.

ANSWER: All Quiet on the Western Front [or Im Westen Nichts Neues]

[10] *All Quiet on the Western Front*, like its sequel *The Road Back*, was written by this German World War I veteran.

ANSWER: Erich Maria **Remarque** [or Erich Paul **Remark**]

[10] This older soldier, an expert scrounger, serves as Paul's mentor. He is killed while Paul is carrying him to safety when a piece of shrapnel silently hits him in the head.

ANSWER: **Kat** [or either underlined portion of **Stanislaus Katczinsky**]

<Carson>

22. These cells are supported by astrocytes and oligodendrocytes, and conduction through them is usually orthodromic. For 10 points each:

[10] Name these cells which carry action potentials across their axons, the fundamental cells of the nervous system.

ANSWER: **neurons**

[10] These spiny, hairlike projections that come off of the cell body of a neuron receive signals from axons of other neurons. They collectively form an arbor.

ANSWER: **dendrites**

[10] This junction between the cell body and the axon of a neuron is where summation of post-synaptic potentials occurs.

ANSWER: axon **hillock**

<Mukherjee>

23. The CIA instituted Operation Ajax to overthrow one leader of this nation, which was ruled by the Qajar dynasty until 1925. For 10 points each:

[10] Name this nation where the communist Tudeh Party was forced underground.

ANSWER: **Iran**

[10] After Ayatollah Khomeini's death, Ali Khamenei took this position in Iran. The holder of this office has the power to overrule decisions made by the Iranian president.

ANSWER: **Supreme Leader** [or **rahbar**]

[10] In 2006, Iran lifted a ban on these people viewing sporting events. Shirin Ebadi won a Nobel Prize for campaigning for the rights of these people.

ANSWER: **women** [accept reasonable equivalents]

<Mukherjee>