



### PACE NSC 2017 - Round 04 - Tossups

1. A poem by this author describes a man whose invented poetry "was easy to understand," and who caused "little children" to die in the streets "when he cried." A character whose "Health-card" showed he was "once in a hospital" but that he "left it cured" titles another poem by this author; that poem describes "JS/07 M 378," a figure who had "everything necessary to the modern man." Another of this author's poems imagines that "for the miraculous birth" there are (\*) children "who did not specially want it to happen." This author of "Epitaph on a Tyrant" and "The Unknown Citizen," proclaimed that "about suffering" the "old Masters" were "never wrong" in a poem meditating on Brueghel's *Landscape with the Fall of Icarus*. For 10 points, name this poet of "Musée des Beaux Arts" (myoo-ZAY day boh-ZARR).

ANSWER: Wystan Hugh Auden <Jose>

2. This figure addresses apple trees and a pig in a pair of poems from the Black Book of Carmarthen. He and Joseph of Arimathea are the title characters of the only surviving poems by Robert de Boron, while other authors conflate him with Aurelius Ambrosius. He revealed that two warring underground dragons were foiling Vortigern's efforts to build a tower, and helped another king enter Tintagel disguised as his rival (\*) Gorlois in order to sleep with Igraine. He dies after falling in love with, revealing his secrets to, and being trapped in a rock or tree by a woman identified as Viviane, Nimue, or the Lady of the Lake. He included an empty seat called the Siege Perilous in his design for the Round Table. For 10 points, identify this wizard who advised King Arthur.

ANSWER: Merlin [or Myrddin; accept Merlinus Ambrosius or Myrddin Emrys or Myrddin Wyllt] <Carson>

3. This compound's synthase was the first enzyme known to exhibit substrate channeling. This amino acid is at the end of the anthranilate branch of the shikimic acid pathway. Protein absorbance at 280 nanometers mostly depends on this amino acid. A leader sequence containing two adjacent residues of this rare amino acid allows its synthase to be attenuated. This compound is hydroxylated, then decarboxylated in the Raphe nuclei to make serotonin. Jacques Monod (moh-NOH) discovered that this amino acid's (\*) operon is negative repressible, as contrasted with the *lac* operon. This heaviest canonical amino acid has a side chain with two rings and has only a single codon. For 10 points, name this amino acid symbolized W, which, despite a common myth, is not what causes Thanksgiving drowsiness.

ANSWER: tryptophan [or W until it is read; or Trp] <Silverman>

4. Hans Trobst's article "Fifteen Gallows" was one of the only foreign reports on purges undertaken by this leader that were justified the following year in his 36-hour speech delivered over six consecutive days. This ruler adopted Switzerland's legal code and Italy's penal code for his country. The borders of his country were redefined through the Treaty of (\*) Lausanne in the same year that his Republican People's Party took power. One of his "Six Arrows", secularism, has been defended decades after his death by the coups of the "Deep State". After he survived an assassination attempt at Izmir, he suppressed most of the remaining Young Turks. For 10 points, name this first president of Turkey.

ANSWER: Mustafa Kemal Ataturk [or Mustafa Kemal Pasha] <Bentley>

5. A character in one of this man's operas sings a lullaby that describes how the "lightning flashes" and the "thunder crashes" after noting "the cloud-flower blossoms". Marvin Cohen's criticism caused this composer to add phrasing involving the words "we believed" to the opening chorus of an opera featuring the Tewa (TAY-wah) housemaid Pasqualita. The title character of another of his operas sings "News has a kind of mystery" after the *Spirit of* (\*) '76 lands. Peter Sellars wrote the libretto for an opera by this man in which quotes from the *Bhagavad Gita* and the aria "Batter my heart, three person'd God" are sung by Robert Oppenheimer. The protagonists of another of his operas watch *The Red Detachment of Women* with Mao Zedong. For 10 points, name this composer of *Doctor Atomic* and *Nixon in China*.

ANSWER: John Adams [or John Coolidge Adams; do not accept "John Luther Adams"] <Carson>

6. Russell Schaedler names a group of eight common bacterial species that live in this habitat. Model species found in this habitat include *theta-iota-omicron* and *fragilis* from the *Bacteroides* genus. Barry Marshall won a Nobel Prize essentially for drinking a culture of a spiral bacterium discovered in this habitat. Bacteria here convert phylloquinone to menaquinone and ferment inulin into short-chain fatty acids. (\*) *H. pylori* was discovered in this habitat. Bacteria that live in this place, the most diverse part of the microbiota, are called flora, and form a signalling axis with the brain. Ruminants use bacteria that colonize this habitat to hydrolyze cellulose. For 10 points, name this habitat of commensal bacteria that are transplanted during fecal replacements.

ANSWER: human gut [or human intestines; or gastrointestinal tract; or GI tract; or human stomach; or digestive system; or small intestines; or large intestines; or gut microbiome; or gut flora; or colon; prompt on human body or similar answers; prompt on animal bodies] <Silverman>

7. Late in this man's presidency, child immigrants to the US gained additional protections through the William Wilberforce Trafficking Victims Protection Reauthorization Act. This president established the recently-expanded Papahānau-mokuākea Marine National Monument. He signed UIGEA (yoo-EE-juh), a bill which, excepting "games of skill", banned certain forms of gambling. Seniors had to pay less for prescription drugs thanks to the enactment of (\*) Medicare Part D during his presidency. His Education Secretary, Rod Paige, was tasked with implementing a law that greatly increased the use of standardized tests, called No Child Left Behind. For 10 points, name this president who signed the USA PATRIOT act into law after the 9/11 attacks.

ANSWER: George Walker Bush [or Bush 43; prompt on Bush; do not accept "George H. W. Bush"] <Bentley>

8. A character in this novel buys a second-hand Studebaker and heads West because Willy the Disk is searching for him. An organization in this novel has ties to Clem and Jody, who sell ergot-infested wheat. In this novel, creatures called Mugwumps attend a market where dealers sell a giant centipede as Black Meat. Its narrator promises to deliver Marty Steel before shooting the officers Hauser and O'Brien from the City (\*) Narcotics Squad. Dr. Benway treats this novel's narrator at the Reconditioning Center in the Freeland Republic, where he is given Eukodol for rehab from his heroin addiction. For 10 points, name this novel about a junkie who travels to Tangier and Interzone, written by William S. Burroughs.

ANSWER: Naked Lunch <Grames>

9. In a theory developed by Lev Vygotsky, the ability of a child to learn unaided goes through a form of this process. A dilemma about a man who considers stealing a life-saving drug is frequently employed in studying a person's progress in another form of this process. In one theory of this process, people must resolve existential difficulties that culminate in such events as the (\*) identity crisis and midlife crisis. A Jean Piaget theory asserts that assimilation, equilibration, and accommodation moves this process along through phases termed sensorimotor, preoperational, concrete operational, and formal operational. For 10 points, what general type of process progresses in stages according to Erik Erikson's psychosocial theory and Lawrence Kohlberg's moral theory?

ANSWER: development [accept proximal development or cognitive development or psychosocial development or moral development; accept answers like stages of development] <Aggarwal>

10. Meinong's jungle consists of items that do not exist but still have a form of this property. One text about this property states that conscious individuals are able to transcend their facticity by embodying elements of two types of this property. In an earlier book, one notion is described as a "relation of" this concept and interprets this concept in terms of present and future possibilities arising from choice; that notion is (\*) *dasein* (DAH-zyne), which translates to "[this concept]-there." Those texts characterize forms of this title concept as "in-the-world," "in-itself," and "for-itself" as part of the field of fundamental ontology. For 10 points, name this term that is paired respectively with "nothingness" and with "time" in the *magnum opuses* of Jean-Paul Sartre and Martin Heidegger.

ANSWER: being [or sein until "dasein" is read; or dasein until it is read; or l'être; or sosein until "transcend" is read; do not accept or prompt on "existence"] <Aggarwal>

11. After a writer from *Wallpaper* magazine described this language as "one of the ugliest" in the world, billionaire Johann Rupert pulled several ads in response. Speakers of another language derisively referred to this one as a *komhuis* (kom-BOUSE), or "kitchen," language. During the 1800s, Arabic script was sometimes used to write this language due to the presence of Malay immigrants in areas like Bo-Kaap. The National Party, which took power in (\*) 1948, promoted the use of this language, which sparked an uprising among students in Soweto (suh-WET-oh). Before 1990, English, German, and this language were official languages of Namibia. This language is the origin of the terms "trek" and "apartheid." For 10 points, name this South African language that recently evolved from Dutch.

ANSWER: Afrikaans [prompt on Cape Dutch; do not accept or prompt on "Dutch"] <Shimizu>

**12. During the Sermon on the Mount, Jesus rhetorically asked listeners whether they would give their son one of these figures if he asked for a fish. After God sent out "fiery" and "flying" instances of these things, Moses created the Nehushtan, a bronze figure of one of these figures mounted on a pole. An angel carrying the key to the abyss throws one of these figures into the abyss in the Book of Revelation; that "ancient" one of these beings (\*) chases a woman who is clothed with the sun. After Aaron threw his staff onto the ground, it transformed into one of these animals. Jesus told the apostles that believers will pick up these animals with their hands, and drink poison without being harmed. For 10 points, name these animals, one of which convinced Eve to eat the forbidden fruit.**

ANSWER: serpents [or snakes] <Cheng>

**13. This author wondered in his poem "The Solution" whether it wouldn't be easier "for the government / To dissolve the people / And elect another?" This man wrote the lyrics to a song asking to "show us the way to the next whiskey bar"; that "Alabama Song" is sung by a troop of prostitutes in a play in which four Alaskan lumberjacks led by Jimmy Mahoney travel to the title city. The protagonist sings the "Cannon Song" with the police chief (\*) Tiger Brown in a play by this author of *The Rise and Fall of the City of Mahagonny*. "Pirate Jenny" appears in a work by this man that opens with a song about a serial killer whose knife is like the "pearly white" of a shark's teeth, titled "Mack the Knife." For 10 points, name this German author who collaborated with Kurt Weill (vile) on *The Threepenny Opera*.**

ANSWER: Bertolt Brecht [or Eugen Bertolt Friedrich Brecht] <Kothari>

**14. The right hand plays the lowest note on the piano at the end of a difficult piece by this composer that opens with a long trill on C-sharp and D-sharp and was inspired by a Watteau (vah-TOH) painting. Marcel Moyse added breath marks and possibly bar lines to a short piece by this composer that is often played from offstage. Tonal ambiguity between B-flat minor and D-flat major characterizes a piece by this man that is followed by a "Passepied" (pahss-pee-AY). This composer of *L'isle joyeuse* (leel jwah-YOOZ) and the solo flute piece (\*) *Syrinx* wrote a work whose first "symphonic sketch" progresses "from dawn to noon" and is followed by an allegro section subtitled "play of the waves". His *Suite Bergamasque* (bare-gah-MASK) contains a piano piece that impressionistically depicts moonlight. For 10 points, name this French composer of *La mer* and *Clair de lune*.**

ANSWER: Claude Debussy [or Achille-Claude Debussy] <Carson>

**15. The general branch of topology dealing with continuity, compactness, and connectedness is named after sets and these objects. A cusp is a variant of the "singular" type of these objects. If a function maps one of these objects to itself, then that object is called "fixed." These objects' relative distances from a circle are expressed as their namesake power. An open set does not contain any of these objects that are on its (\*) boundary. The second derivative test can often identify stationary instances of these objects, which can be a minimum, maximum, or one of these objects "of inflection." There is exactly one plane through three non-collinear instances of these objects. For 10 points, name this basic unit of Euclidean geometry, an infinite number of which are in a line.**

ANSWER: points [accept point-set topology] <Aggarwal>

16. An artist with this last name depicted Jim Hawkins looking up at Long John Silver's parrot in one of the illustrations for Scribner's edition of *Treasure Island*. *Portrait of Pig* is a popular painting by the youngest of three generations of artists with this surname on view at the Brandywine River Museum near Philadelphia. A farmhouse made famous by an artist with this surname was made into a museum in South Cushing, (\*) Maine. An artist with this surname who painted numerous portraits of his German neighbor Helga Testorf depicted a young woman in a pink dress picking berries in a painting that appears to show that polio-afflicted woman crawling towards the distant Olson farmhouse. For 10 points, give the surname of the artist of *Christina's World*.

ANSWER: Wyeth [accept Andrew Wyeth or N. C. Wyeth or Jamie Wyeth] <Bentley>

17. Constance Spry and Rosemary Hume created a new chicken dish named for these events. John Dee chose the date for one of these events presided over by the lowly-ranked Owen Oglethorpe. Some Saxons were massacred by William I's troops at one of these events on Christmas Day after it was mistakenly believed they were crying for rebellion. An officer known as the Champion was traditionally required to wear a full suit of armor during these events. St. Edward's (\*) Chair is an important piece of furniture in these events. A namesake spoon is used to apply holy oil during these events. The most recent one of them in the UK took place on June 2, 1953, in Westminster Abbey, over a year after the death of George VI. For 10 points, name these events where monarchs are crowned.

ANSWER: coronations of English monarchs [or British coronation ceremonies; prompt on crowning, anointing, or enthronement of British monarchs] <Bentley>

18. Eliot Weinberger and Octavio Paz collaborated on a book titled for *19 Ways of Looking at a poet from this country*, analyzing translations of a poem that describes sunlight playing over green moss on a solitary mountain. "White bones" lying "on the shores of the Kokonor" are described in a poem from this country, also the origin of poem in which a "westward voyager" is asked "when will you come back" from a voyage whose (\*) difficulty is compared to "climbing the sky." This birthplace of the authors of "Deer Park" and "Ballad of the Army Carts" was home to the author of the nostalgic quatrain "Quiet Night Thoughts" and the aforementioned "Hard is the Road to Shu". For 10 points, name this home country of Wang Wei, Du Fu, and Li Bai, three Tang dynasty poets.

ANSWER: China [or Zhongguo; accept Wang Wei until "country" is read] <Carson>

19. Two answers required. One of these two leaders prepared for a potential attack by the other with a plan called Operation Unthinkable. Together, these leaders quantified amounts of their influence in five countries in the "percentages agreement." One of these two leaders gifted the other a sword honoring a recent victory while at the Tehran Conference. A Polish regiment served for one of these heads of state at Monte Cassino after being (\*) released from imprisonment by the other. One of these two leaders called the other's country "a riddle wrapped in a mystery inside an enigma." Along with an American counterpart, these leaders were present at the Yalta Conference. For 10 points, name these World War II-era leaders of the United Kingdom and the Soviet Union.

ANSWER: Winston Churchill AND Joseph Stalin [or Sir Winston Leonard Spencer-Churchill AND Iosif Vissarionovich Dzhugashvili] <Shimizu>

**20. The polar moment of inertia is defined using a ratio of this quantity to the maximum shear stress on a beam. Henry Cavendish calculated big G using a device whose governing equation is that this quantity equals "negative kappa theta." This quantity is nonzero in a couple. For a wire loop placed in a field, this quantity equals the field strength times the dipole moment times the sine of the angle between them. The rate at which a top (\*) precesses equals this quantity divided by the top's angular momentum. The net value for this quantity equals the angular acceleration times the moment of inertia, and is calculated by summing the cross product of each force and its distance to the axis. For 10 points, name this quantity that causes objects to rotate.**

ANSWER: torque [or tau; or moment of force; prompt on moment] <Silverman>

**21. Lewis Fry Richardson developed a set of differential equations used in modelling phenomena of interest in this science. In 1917, Vilhelm Bjerknes (BYURK-niss) started the Bergen School of this discipline; his students included Tor Bergeron, whose namesake model of crystal growth is often used in this discipline. The "synoptic scale" of this discipline makes measurements on the order of thousands of kilometers. While working as a chemist in this science, Kurt Vonnegut's brother Bernard discovered that (\*) silver iodide could be used to induce "seeding" of certain structures. Predictive models in this discipline fail due to chaos, since the "butterfly" effect may cause an enormous change in the atmosphere of the future. For 10 points, name this study of the weather.**

ANSWER: meteorology [accept the study of weather until "weather" is read; accept equivalents mentioning weather such as weather forecasting; prompt on atmospheric sciences or answers mentioning atmosphere until "atmosphere" is read; prompt on earth science] <Jose>



### PACE NSC 2017 - Round 04 - Bonuses

1. This author argued that "poets are the unacknowledged legislators of the world" in an essay modeled on Philip Sidney that responds to Thomas Love Peacock's "The Four Ages of Poetry." For 10 points each:

[10] Name this author of "A Defense of Poetry," who also expounded on his theory of poetry in the preface to his closet drama *Prometheus Unbound*.

ANSWER: Percy Bysshe **Shelley**

[10] In "A Defense of Poetry," Shelley compares human beings to these instruments because "a series of external and internal impressions are driven" over them. A "conversation poem" titled for one of these instruments is addressed to "my pensive Sara!"

ANSWER: an **Aeolian lyre** [or "The **Eolian Harp**"; prompt on harp or lyre]

[10] Shelley's earlier non-fiction included a tract on the "Necessity" of this belief that God does not exist, which got him expelled from Oxford in 1811.

ANSWER: **atheism** [accept word forms] <Brownstein>

2. This hero kills himself after he goes mad and slaughters a bunch of sheep, then realizes the grave nature of his actions. For 10 points each:

[10] Name this Greek hero, a son of Telamon who used his huge shield to defend his half-brother Teucer, a noted archer.

ANSWER: **Ajax** the Greater [or Telamonian **Ajax** or **Ajax** the Great; accept **Aias** for "Ajas"; do not accept or prompt on "Ajax the Lesser" or "Oilean Ajax"]

[10] Ajax went mad after Odysseus was awarded the armor of Achilles he desired; earlier, he wrestled with Odysseus at the funeral games of this hero, whose death caused Achilles to reenter the fighting during the Trojan War.

ANSWER: **Patroclus**

[10] Prior to Patroclus's death, Ajax, Odysseus, and this other hero attempted to convince Achilles to fight. This man became king of the Dolopians after fleeing the court of his father Amyntor.

ANSWER: **Phoenix** <Jose>

3. Answer the following about the physics of loudspeakers, for 10 points each.

[10] The efficiency of a loudspeaker is the ratio of the sound form of this quantity as output and the electric form of this quantity as input. The SI unit for this rate of work is the watt.

ANSWER: **power**

[10] One goal when designing a speaker is for the cone to have a strong form of this characteristic so that the frequency response is consistent across different sounds. The critical coefficient of this name is equal to 2 times the square root of the spring constant and mass in a harmonic oscillator.

ANSWER: **damping**

[10] One of the difficulties of designing a good speaker is the inherently subjective nature of this property, which is based on factors such as the attack and delay, vibrato and harmonic content. This property measures the overall perceived quality of a sound.

ANSWER: **timbre** [or **tone quality**; or **tone quality**] <Bentley>

4. From 1878 to 1881, this organization launched an "emperor hunt" wherein two provincial governors were killed. For 10 points each:

[10] Identify this secret organization, which split from the Land and Liberty Society and used a bomb to assassinate an emperor in 1881.

ANSWER: **People's Will** [or **Narodnaya Volya**; or **People's Freedom**]

[10] That assassinated emperor was this Russian czar, who had emancipated the serfs in 1861.

ANSWER: **Alexander II** [or **Aleksandr Nikolayevich**; or **Aleksandr II**; prompt on **Alexander**]

[10] During the reign of Alexander III, six people who had suffered this fate were killed in the Yakutsk Tragedy, an incident widely reported in the West. Journalist George Kennan toured the United States with a half-shaved head in order to advocate for the rights of people subjected to this fate, who lived in katorgas.

ANSWER: **exiled to Siberia** [or obvious equivalents of being **imprisoned in Siberia**; prompt on answers like **exile** or **prison**] <Bentley>

5. This only species in the genus *Birgus* breathes using an organ called the branchiostegal lung, rather than its vestigial gills. For 10 points each:

[10] Name this apparently-delicious animal, the largest terrestrial arthropod. Their most common names come from a feeding behavior in which they climb trees to access a certain food, which they then strip, drop to the ground, and crack into.

ANSWER: **coconut crabs** [or **robber crab**; or **palm thief**; or *Birgus latro*; prompt on **crabs**]

[10] Coconut crabs may have eaten the remains, and then hidden the bones, of this pioneering female aviator, who disappeared over the Pacific during an attempted circumnavigation of the Earth in 1937.

ANSWER: Amelia Mary **Earhart**

[10] Coconut crabs can be found on the Aldabra atoll, the second largest coral atoll in the world, which is a part of the Outer Islands of this archipelagic country. Its capital Victoria is located on its largest island, Mahé.

ANSWER: Republic of **Seychelles** [or République des **Seychelles**; or Repiblik **Sesel**] <Carson>



6. Answer the following about Raymond Davis, the father of "neutrino astrophysics," for 10 points each.

[10] Davis ran the Homestake Experiment to see how many neutrinos this body emitted; the problem of this body emitting significantly fewer neutrinos than expected was finally resolved with the proposal that neutrinos undergo "flavor oscillations."

ANSWER: the **Sun** [or **Sol**]

[10] Davis was also the first to confirm that the Sun fused hydrogen atoms to create this element. Pierre Jansen named this element after the Greek word for "sun" after he observed this element during an eclipse.

ANSWER: **helium** [or **He**]

[10] Davis's Homestake Experiment was located underground in South Dakota to reduce the background noise from these particles. Greisen, Zatsepin, and Kuzmin proposed a theoretical upper limit of the energy of these particles.

ANSWER: **cosmic rays** <Jose>

7. A trilogy of novels within this sequence partly consisting of *The Girl with the Golden Eyes* purports to describe the "History of the Thirteen," a group of occult Freemasons. For 10 points each:

[10] Name this series of novels and other writings, which includes the novels *Lost Illusions* and *Pere Goriot*.

ANSWER: *The **Human Comedy*** [or *La **Comédie humaine***]

[10] The desire to "paint the two or three thousand salient figures of the age" motivated this Frenchman to write *The Human Comedy*.

ANSWER: Honoré de **Balzac** [or Honoré **Balzac**]

[10] This Nobel-Prize winning writer's only novel *Auto-Da-Fé* was supposed to be the first in a "human comedy of madness." He also wrote the sociological treatise *Crowds and Power*.

ANSWER: Elias **Canetti** <Jose>

8. When asked by a Gentile to explain the Torah while standing on one foot, this man replied, "What is hateful to you, do not do to your neighbor: that is the whole Torah, the rest is the commentary; go and learn it." For 10 points each:

[10] Name this Jewish sage who founded a namesake school of Jewish thought that rivaled the school of his contemporary Shammai (**shah-MYE**).

ANSWER: **Hillel** the Elder

[10] Hillel wrote down a set of this many rules used in the interpretation of scriptures. In the Jewish calendar, the Sabbath is observed on the day of this number in the week.

ANSWER: **seven**

[10] During *korech* (**core-EKH**) in the Passover seder, many Jews eat Hillel's sandwich, which consists of these bitter herbs placed between pieces of *matzah*. These herbs are symbolic of the bitterness of slavery in Egypt.

ANSWER: **maror** [or **marror**; prompt on horseradish or lettuce] <Cheng>

9. This one-time apprentice of Jedediah Strutt pretended to be a farmhand in order to emigrate to the United States. For 10 points each:

[10] Identify this "father of the American industrial revolution". He was the first person to build textile mills that incorporated Arkwright spinning machines in the United States.

ANSWER: Samuel **Slater**

[10] "Slater the Traitor", as he was known in Great Britain, inspired several copycat mills in the United States which were helped by the passage of this 1807 act. A turtle nips at the bottom of a man carrying a barrel in a political cartoon satirizing this act.

ANSWER: **Embargo** Act of 1807

[10] Another American industrialist, Francis Cabot Lowell, used first-hand knowledge of British mills to establish a textile empire in this state. Worcester and Springfield also became important manufacturing centers in this New England state.

ANSWER: **Massachusetts** <Bentley>

10. The first of these works opens with harp arpeggios representing the mythical bard Lumir and includes a four-note motif, B-flat E-flat D B-flat, that represents the title castle. For 10 points each:

[10] Name this set of six symphonic poems. The second of them, which depicts a river, includes a melody based on the Italian song *La Mantovana*.

ANSWER: ***Má vlast*** [accept ***My Homeland***]

[10] *Má vlast*, which includes the famous *Vltava* (vull-TAH-vah), is by this Czech composer who wrote the opera *The Bartered Bride*.

ANSWER: Bedřich **Smetana** (SMET-uh-nuh)

[10] The final movement of Smetana's string quartet *From My Life* features a violin playing a sustained high E, representing the ringing sound that presaged Smetana's suffering of this affliction. The *Heiligenstadt Testament* details Beethoven's despair over the onset of this condition.

ANSWER: **deafness** [accept equivalents like **going deaf** or developing an **inability to hear**; prompt on **tinnitus**] <Carson>

11. Answer some questions about modern gun control measures around the world, for 10 points each.

[10] Australian Prime Minister John Howard implemented a gun buyback program and severely restricted private gun ownership following this 1996 mass shooting in Tasmania.

ANSWER: **Port Arthur** Massacre [accept obvious equivalents for "massacre"]

[10] Though the United States does not allow large-scale firearm sales from unlicensed private sellers without conducting a background check, federal law does permit private sellers to sell weapons with no checks required; that fact is commonly referred to as a "loophole" named for these events.

ANSWER: **gun show** loophole [or **gun shows**]

[10] This country with the lowest rate of gun violence in the world is also among the strictest in gun control measures. Historically, private gun ownership in this nation has been associated with criminal enterprises like the *yakuza*.

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

12. Regular Coen brothers collaborator Roger Deakins is often said to be the best living person working in this profession. For 10 points each:

[10] Name this person who works under the director of a movie and is responsible for directing the camera and light crews as a film is being shot. This person is often said to be responsible for the "look" of a film.

ANSWER: **cinematographer** [or **director of photography**; prompt on **DP** or **DOP**]

[10] Gregg Toland, who is often said to be the best cinematographer of all time, worked on this Orson Welles film, which opens with the title business magnate saying "Rosebud" on his deathbed.

ANSWER: **Citizen Kane**

[10] The Spanish cinematographer Nestor Almendros went blind as he was shooting this director's movie *Days of Heaven*, which nevertheless remains acclaimed for its cinematography. This director also made *Tree of Life*.

ANSWER: Terrence Frederick **Malick** <Jose>

13. A memoir titled for this city discusses *hüzün*, a type of melancholy that is "communal rather than private." For 10 points each:

[10] Name this city, the setting of a novel with chapters narrated by pictures of objects such as a tree and a coin, in which painters nicknamed Stork, Olive, and Butterfly are suspected of murdering the head of their workshop.

ANSWER: **Istanbul** [The novel is *My Name is Red*]

[10] In *Istanbul*, Orhan Pamuk writes that he cannot remember his childhood without this phenomenon.

Pamuk's novel titled for this phenomenon follows the poet Ka's visit to a town beset by a controversy over headscarves.

ANSWER: **snow**

[10] *Istanbul* defines two types of *hüzün* based on different traditions of this religion, to which the headscarf-wearing girls in *Snow* subscribe.

ANSWER: **Islam** <Brownstein>

14. This artist sought to combine the "simplicity of the dot" with the "freshness of sensation postulated by Impressionist art" in paintings such as *Two Peasant Women in a Meadow*. For 10 points each:

[10] Name this artist, the only one to show works at all eight Impressionist exhibitions. He painted many bird's-eye perspectives of the Boulevard Montmartre.

ANSWER: Camille **Pissarro** [or Jacob-Abraham-Camille **Pissarro**]

[10] Pissarro's Boulevard Montmartre scenes were set in this city. Smoke obscures the background of Edouard Manet's painting of this city's largest train station, the Gare Saint-Lazare.

ANSWER: **Paris**, France

[10] Pissarro's early paintings, such as *The Banks of the Marne in Winter*, were lauded by this writer and art critic. A print of *Olympia* hangs on the wall in a portrait of this writer at his desk by Manet.

ANSWER: Émile (Édouard Charles Antoine) **Zola** <Bentley>

15. This word titles a study by Erich Auerbach that contrasts depictions of time in space in the Bible's account of the sacrifice of Isaac with Eurycleia's recognition of Odysseus's scar. For 10 points each:

[10] Name this Greek word which means "representation" or "imitation of nature" when applied to literature.

ANSWER: **mimesis**

[10] In his *Poetics*, this ancient philosopher defends the use of *mimesis*, unlike Plato, who suggested that poets should be banished from his ideal *polis* since all art is inherently untrue.

ANSWER: **Aristotle**

[10] Aristotle's *Poetics* also introduces this dramaturgical term, which is the purging of emotions that the audience undergoes when it has finished watching a tragedy.

ANSWER: **catharsis** <Jose>

16. Answer the following about variously epistolary works of American literature, for 10 points each.

[10] This Saul Bellow novel is titled for the surname of its protagonist Moses, who spends most of it writing mental letters to various acquaintances and famous people after his wife Madeleine leaves him for his friend Valentine Gersbach.

ANSWER: Herzog

[10] This author of an epistolary novel about the end of the Roman Republic, titled *The Ides of March*, is more famous for such plays as *The Skin of Our Teeth* and *Our Town*.

ANSWER: Thornton Niven Wilder

[10] A somewhat less fictional epistolary work of American literature, 1782's *Letters from an American Farmer*, was written by this Frenchman who emigrated to the United States in 1759.

ANSWER: J. Hector St. John de Crevecoeur (krev-KURR) [or John Hector St. John de Crevecoeur; accept Michel Guillaume Jean de Crèvecoeur] <Carson>

17. One conflict between the Romans and these people began after Rome established a colony at Fregellae. For 10 points each:

[10] Identify these people who, despite a great victory over the Romans at the Battle of Caudine Forks, were eventually brought under Roman control.

ANSWER: Samnites

[10] These other people of the Italian peninsula fought the 535 BCE Battle of Alalia against the Greeks for control over Mediterranean trade. Lars Porsena, a king of these people, supposedly fought a war against the newly formed Roman Republic.

ANSWER: Etruscans

[10] This Roman emperor is said to have compiled a dictionary of the Etruscan language. This emperor also wrote a no longer extant treatise on dice playing, *De arte aleae*, before possibly being poisoned by his wife Agrippina.

ANSWER: Claudius [or Tiberius Claudius Caesar Augustus Germanicus] <Bentley>

18. Cholesterol and its derivatives form nematic liquid crystals described by this adjective, which is also used to describe the angle between unit vectors in a single-walled carbon nanotube. For 10 points each:

[10] Name this adjective that, in organic chemistry, describes compounds that are different from their mirror images.

ANSWER: chiral

[10] Chirality leads to the "stereo" form of this chemical property, in which two compounds have the same chemical formula, but the atoms are attached differently.

ANSWER: isomerism [or word forms; or stereoisomerism]

[10] A basic example of constitutional isomerism is the fact that all saturated alcohols with two or more carbons have an isomer with this functional group. Exactly one of these compounds has the chemical formula C<sub>2</sub>H<sub>6</sub>O.

ANSWER: ethers <Silverman>

19. The fourth statement of this document warns that "evil customs of the past shall be broken off and everything based upon the just laws of Nature". For 10 points each:

[10] Name this document consisting of five points, which was promulgated in 1868. It effectively functioned as a philosophical blueprint for Japan's modernization.

ANSWER: Charter Oath [or Gokajō no Goseimon]

[10] The Charter Oath was promulgated by this modernizing 19th-century emperor of Japan.

ANSWER: Emperor Meiji

[10] This Japanese samurai believed that the Tokugawa shogunate needed to be completely stripped of its power after the restoration of the Meiji Emperor. He later led the abortive Satsuma Rebellion.

ANSWER: Saigo Takamori <Jose>

20. Phenylketonuria is a common example of this phenomenon, since it results in decreased production of melanin but also mental retardation. For 10 points each:

[10] Name this effect in which a single genotype is responsible for multiple different phenotypes, as opposed to epistasis. It's also demonstrated by Marfan syndrome.

ANSWER: pleiotropy [or word forms]

[10] Pleiotropy and epistasis go beyond the traditional views of genetics named for this Austrian monk, who did some thrilling experiments with peas.

ANSWER: Gregor Mendel

[10] This other commonly cited pleiotropic disease can lead to vaso-occlusive crises but also inflammation of the fingers. Linus Pauling figured out the molecular basis of this disease, an E6V point mutation, and called it the first "molecular disease."

ANSWER: sickle cell disease [or sickle cell anemia; or SCD] <Silverman>

21. Answer the following about United Airlines's "Island Hopper" flight, which visits seven islands in 20 hours and is key to several Pacific island economies, for 10 points each.

[10] The termini of the Island Hopper flight are Honolulu, Hawai'i, and this island whose natives are known as the Chamorro. This island is an unincorporated and organized territory of the United States.

ANSWER: Guam [or Guahan]

[10] The Island Hopper brings both tourism and much-needed goods to Pohnpei and Weno, two islands in this group of "Federated States." It is located to the north of Melanesia.

ANSWER: Federated States of Micronesia [prompt on FSM]

[10] The Island Hopper flight also includes a stop on Koror, the most populous island of this republic. Its Milky Way Lagoon is a popular scuba diving and snorkeling vacation spot.

ANSWER: Republic of Palau [accept Belau or Pelew] <Jose>