

1. Late in his life, this artist produced prints like *The Knife Thrower* and *The Snail*, known as his "cutouts." He painted a figure with an unnaturally twisted buttock in a work subtitled "Souvenir de Biskra," as well as a portrait of his wife with her face split in two by a "green line." This painter of *Blue Nude* depicted the title color bleeding from the floor to the wallpaper in his painting *The Red Room*. He used a half-blue and half-green landscape to display five red figures in a circle in another painting, a scene reimaged in this artist's *The Joy of Life*. For 10 points, name this painter of *The Dance*, the leader of Fauvism.

ANSWER: Henri Matisse

020-09-12-14102

2. As a result of this event, Henricus Vos and Johannes van den Esschen were executed. A meeting in Speyer temporarily retracted the central result of this event, which resulted in a proclamation authored by Girolamo Aleandro. The Archbishop of Trier, Johann Eck, spoke for the emperor who convened it. Frederick the Wise guaranteed that one man would have safe passage to and from this meeting. It took place the year after Pope Leo X issued the papal bull *Exurge Domine*, which demanded that a man retract forty-one errors in his writings. Instead of retracting his errors, that man allegedly stated at this meeting "Here I stand; I can do no other." For 10 points, name this 1521 meeting whose namesake edict outlawed Martin Luther as a heretic.

ANSWER: Diet of Worms [or Reichstag zu Worms]

024-09-12-14103

3. After the grandmother of this novel's narrator dies, his mother begins obsessively reading the letters of Madame Sevigne. This novel's narrator joins a salon consisting of the "faithful," whose members include the polish sculptor Ski, Dr. Cottard, and the author Bergotte. In the fifth section of this novel, the narrator's jealousy that his lover may be secretly having lesbian affairs causes him to attempt to keep that lover, Albertine, in his room. This novel's third volume describes the narrator's disenchantment with the Duchess of Guermantes. In its opening volume, the narrator recalls his childhood in Combray after tasting a madeleine. For 10 points, name this novel whose sections include *Sodom and Gomorrah*, *Time Regained*, and *Swann's Way*, the masterpiece of Marcel Proust.

ANSWER: In Search of Lost Time [or Remembrance of Things Past; or A la Recherche du Temps Perdu]

004-09-12-14104

4. An apocryphal story describes this figure harvesting a hundred bushels from a single grain. In one speech, he attacked people who "hold on to the traditions of men," and his description of the end times is sometimes called the Olivet discourse. Abraham Lincoln quoted this man's assertion that "a house divided cannot stand," and he withered a fig tree when it failed to provide him with fruit. One selection of this man's teachings is known as the Great Commission, and he gave a speech in the Upper Room. This man aided in the catching of 153 fish and was spotted on the Road to Emmaus after his death. For 10 points, name this religious figure who walked on water and was crucified.

ANSWER: Jesus

022-09-12-14105

5. The volunteer "four-minute men" gave speeches supporting this war. During this war, the American Protective League conducted illegal raids on supposed "slackers." Propaganda supporting this war was disseminated by a committee led by George Creel. The Nye Committee's investigation into the profits munitions companies made from this war helped lead to policy of isolationism embodied in three Neutrality Acts. The speech entering the United States into this war declared that "the world must be made safe for democracy." For 10 points, name this war that prompted the creation of the League of Nations and took place during the presidency of Woodrow Wilson.

ANSWER: **World War I** [or the **Great War**]

004-09-12-14106

6. During the pathogenesis of Acute Promyelocytic Leukemia, one of these events results in the PML gene being under the control of the retinoic acid receptor. One of these puts the c-myc gene under the control of the immunoglobulin heavy-chain enhancer in Burkitt's lymphoma. This is the mechanism for the formation of a structure which encodes the Bcr-Abl tyrosine kinase named for Philadelphia, which causes chronic myelogenous leukemia. The loss of two p arms occurs in the Robertsonian type of this, which is responsible for a small percentage of Down syndrome. They can be balanced or unbalanced depending on whether genetic material is lost in the process. For 10 points, name this moving of parts of one chromosome to another.

ANSWER: **translocation** [prompt on **rearrangement**]

001-09-12-14107

7. This man's government hosted the World People's Conference of Climate Change as a follow up of the Copenhagen conference. He supports the Red Ponchos movement and most recently he defeated rival Manfred Reyes Villa in an election. He was elected president following a series of protests regarding his country's production of natural gas. The party he heads led rallies in 2000 protesting water privatization in Cochabamba. He succeeded Eduardo Rodriguez in his current post, where he leads the Movement for Socialism party and advocates policies like the teaching of Quechua in classrooms and the legalization of coca farming. For 10 points, name this indigenous President of Bolivia.

ANSWER: Evo **Morales**

064-09-12-14108

8. One incident in this conflict was Operation Praying Mantis, which occurred after the near destruction of the *Samuel B. Roberts*. The United States carried out Operations Earnest Will and Prime Chance during this conflict to protect ships during the "Tanker War" phase. The U.S. supplied "dump bombs" to one side in this conflict, although thanks to an illegal arms deal involving the Contras, it was also indirectly supplying the other side as well. During the waning days of this conflict, one side inflicted the Halabja poison gas attack on its Kurdish population. For 10 points, name this war that lasted between 1980 and 1988 and saw two Middle Eastern nations fight each other under the leadership of the Ayatollah Khomeini and Saddam Hussein.

ANSWER: **Iran-Iraq War** [order does not matter, accept **Imposed War**, **Holy Defense**, and **Saddam's Qadisiyyah**]

052-09-12-14109

9. The Heilbronn Problem is to find the set of points on the edge of a unit-area shape that maximizes the area of the smallest of these thus formed. The construction of one of these objects is the subject of a problem posed by Lemoine whose solution is the Kiepert hyperbola. These objects have two points defined by a certain angle all three of which are named for Brocard. Whether or not three lines in these objects will be concurrent can be determined using Ceva's theorem. One method of finding the area of these objects uses the semiperimeter and side lengths and is called Hero's formula. For 10 points, name these planar figures, the area of one of which is half its base times its height.

ANSWER: **triangles**

023-09-12-14110

10. One of these figures used the dove as a messenger and is named for "eight heavenly banners." Another of these figures was known for his "ruddy face" and was married to a woman who performed an erotic dance on an overturned tub. An earlier one of these figures gave birth to the leech child after speaking out of turn, and turned the realm of Yomi against her husband, who created three children by washing his face. One of them tossed a flayed horse to upset another, who hid in a cave, from which she was lured by Uzume. For 10 points, name this group of deities and spirits such as Izanagi, Susano'o, and Amaterasu, who populate the mythology of Japan.

ANSWER: **Kami** [accept **gods** of **war** before mention of "ruddy face"]

022-09-12-14111

11. The magnitude of this effect and the sheet resistivity can be measured simultaneously in the four-contact van der Pauw method. The constant characterizing the process underlying this effect can then be written as one over the quantity fundamental charge times sheet density times sheet resistance - that quantity is the constant of proportionality between the charge drift velocity and applied electric field and is known as the mobility. This effect can be explained by considering the Lorentz force on a drifting charge carrier, so its sign determines the majority carrier in semiconductors. The magnitude of this effect scales with applied magnetic field, so it can be used to make sensitive magnetometers. For 10 points, name this electromagnetic effect, the creation of a voltage gradient perpendicular to an applied current in a magnetized material.

ANSWER: the **Hall** effect

064-09-12-14112

12. The NAIRU model for this phenomenon is advocated by Milton Friedman and proposes a baseline for it. Edmund Phelps's investigations into it yielded an expectations-augmented form of one model of it. Causes of this include sectoral shift, which has frictional and structural forms. Arthur Okun proposed that economic output decreases by two to three percentage points for every one percentage point this rate increases. Excluding changes from business cycles yields the natural rate of this phenomenon, and William Phillips observed a correlation between an increase in wages with a decrease in this. For 10 points, name phenomena in which willing people are unable to find jobs.

ANSWER: **unemployment**

001-09-12-14113

13. This man had the nickname "Stone Arse," although he liked to note a more accurate nickname was "Iron Arse." This man's pilot, Endel Puusepp, was honored for a dangerous flight transporting this man to Washington D.C. His Jewish wife, Polina, was put in a labor camp on suspicion of treason, but was later freed after the leader this man worked for died. While working for that leader, he earlier imposed harsh penalties on peasants caught "gleaning" the harvest with the Law of Spikelets. This man co-names a treaty which was broken when his country was invaded in Operation Barbarossa. That treaty was a non-aggression pact co-signed with German Foreign Minister von Ribbentrop. For 10 points, name this Commissar for Foreign Affairs in the Soviet Union under Stalin.

ANSWER: Vyacheslav Mikhailovich **Molotov** [or Vyacheslav Mikhailovich **Scriabin**]

052-09-12-14114

14. In one of this author's poems, the speaker laments that his sins "pass the Jews' impiety" because he crucifies Jesus not once, but "daily, being now glorified." In another of this author's poems, the speaker asks God "like Adamant to draw" his "iron heart" after imploring "Thou hast made me, and shall thy work decay?" A third poem by this author pleads "That I may rise, and stand, o'erthrow me, and bend / Your force to break, blow, burn, and make me new" after the speaker asks "three-person'd God" to "batter" his heart. For 10 points, name this British poet who wrote "death shall be no more; death, thou shalt die" in the tenth of his Holy Sonnets, which begins "Death, be not proud."

ANSWER: John **Donne**

004-09-12-14115

15. This composer responded to the death of his four year old daughter by writing his opus fifteen piano trio in G minor. This composer's first string quartet ends with a movement whose coda includes a sustained high E natural, representing high-pitched tones ringing in his ears. He composed a symphonic poem depicting the massacre of Ctirad's men by Sarka, as well as a symphonic poem depicting the St. John Rapids, which begins with two flutes representing the two sources of the title river. This composer of a string quartet subtitled "From My Life" wrote a cycle of six nationalistic tone poems about his home country, beginning with one named for the fortress of Vysehrad. For 10 points, name this nineteenth century Czech composer of *Ma Vlast*, which includes his tone poem "The Moldau."

ANSWER: Bedrich **Smetana**

024-09-12-14116

16. This quantity is given by square root of h over two pi square root of c times reduced mass times the microwave spectrum line spacing in the rigid rotor approximation. Aromaticity was discovered upon finding via x-ray crystallography that benzene possesses only two values for this quantity. This quantity decreases as the p-character decreases, and it decreases as bond order increases. For 10 points, name this quantity, the average distance between two atoms that share electrons in a molecule, which can vary for carbon-carbon bonds from one hundred twenty to one hundred fifty-four nanometers.

ANSWER: **bond length**

022-09-12-14117

17. Upon hearing that a god does not know the word "alas," this character exclaims "Time in its aging course teaches all things." In a monologue, this character describes how he was the first to yoke animals and his discovery bronze, iron, silver, and gold. Oceanus counsels him to submit, although this character prophesies to Io that Zeus will be overthrown. At the end of the play named for this character, a bolt of lightning causes him to sink into an abyss. At the beginning of that play, this character is carried onstage by Kratos and Bia, and placed in chains by Haephestus. For 10 points, name this Titan, the title character of an Aeschylus play in which he is bound.

ANSWER: **Prometheus**

004-09-12-14118

18. One performer of this instrument co-founded Quintette du Hot Club de France along with the violinist Stephane Grappelli, and developed a new fingering system for this instrument after losing mobility in his left ring and pinky fingers. Another performer of this instrument appeared regularly with organist Melvin Rhyne and composed the tunes "Four on Six" and "West Coast Blues." A third performer of this instrument collaborated with his wife and a saxophonist to produce the seminal album of bossa nova, *Getz/Gilberto*. This instrument was played by Django Reinhardt, Wes Montgomery, and Charlie Christian, who demonstrated the viability of this instrument's electric version as a solo instrument. For 10 points, name this stringed instrument played by blues musicians such as Blind Lemon Jefferson and B. B. King.

ANSWER: **guitar**

003-09-12-14119

19. This work describes a process by which individuality manifests itself in cellular, genetic, organic, and combinatory ways. One place examined in this text is located in Mettray. This work opens by discussing the treatment of Robert-Francois Damiens. A central concept in this work is the "unequal gaze," which allows the observers to watch without those being watched to know about it. This work argues that the central institutions create "docile bodies" through observation, which is exemplified by Jeremy Bentham's "Panopticon." For 10 points, name this work subtitled "The Birth of the Prison," by Michel Foucault.

ANSWER: **Discipline and Punish: The Birth of the Prison** [or **Surveiller et punir: Naissance de la Prison**]

026-09-12-14120

20. One character in this novel invents the story of Leni, a French cabaret singer who is forced to spy on the Nazi officer Werner. In its ninth and tenth chapters, that character describes an island where black workers who rebel against banana plantations are turned into zombies by a witch doctor. One of its main characters loves the waiter Gabriel, and retells *I Walked With a Zombie* and *Cat People* to a Marxist revolutionary. At the end of this novel, Molina is shot to death by the police, while Valentin is left in an idyllic stream of consciousness after being brutally tortured. For 10 points, name this 1976 novel about an Argentinean political prisoner listening to his gay cellmate tell movie plots, written by Manuel Puig.

ANSWER: **Kiss of the Spider Woman** [or **El beso de la mujer araña**]

052-09-12-14121

21. A 1990 riot in the Akwesasne Territory led to questions regarding jurisdiction over this construct, which was the focus of the 1903 Hay-Herbert Treaty. The Pig War arose from a dispute over whether the Haro or Rosario Strait was meant in a clause of the Pakenham Treaty concerning it. A 1908 treaty was challenged when Dennis Schornack was fired as U.S. Commissioner for this in 2007. It created the exclave Point Roberts, and a dispute over its western part led to the resolution of the Oregon Question. For 10 points, name this political construct that often follows the forty-ninth parallel, through which Americans cross to reach British Columbia or Quebec.

ANSWER: **United States-Canada Border** [or **International Boundary**; or other clear-knowledge equivalents; accept New York, Alaska, or Washington for United States]

003-09-12-14122

22. This author's great grandniece wrote a historical novel about Gustav III called *The King with Two Faces* as well as the poems "The White Women" and "The Other Side of a Mirror." This author wrote a poem celebrating "the one Life within us and abroad, which meets all motion and becomes its soul," which is addressed to "My pensive Sara!" This poet's eight "Conversation poems" include a poem whose speaker feels "A grief without a pang, void, dark, and drear," as well as "The Aeolian Harp." Another of this author's poems declares "He prayeth best who loveth best, all things both great and small" and is narrated by a Wedding Guest who "stoppeth one of three." For 10 points, name this Romantic poet of "Dejection: An Ode," who wrote about a sailor who shoots an albatross with a crossbow in "The Rime of the Ancient Mariner."

ANSWER: Samuel Taylor **Coleridge**

015-09-12-14123

23. One example of this type of biome is the relatively flat hamada, or reg [REHJ], which is contrasted with the less flat erg. In the Koppen classification system, this biome is given the classifications BWh and BWk. Clay, iron, and manganese oxide collect on rocks in this biome in a process known as its namesake varnishing. Flat, smooth areas in this biome are known as its namesake pavement. Because of Hadley cell circulation, these biomes are often found near latitudes of thirty degrees north and south. They are often found near mountain ranges because of the rain shadow effect. For 10 points, name this biome which is defined by its lack of precipitation.

ANSWER: **deserts**

015-09-12-14124

1. He defeated the usurper Magnus Maximus in 388 CE. For 10 points each:

[10] Name this man, the last to rule both the Eastern and Western Roman Empire, who is often called the emperor who made Christianity mandatory.

ANSWER: **Theodosius I** [or **Theodosius the Great**; prompt on **Theodosius**]

[10] The Christianity which Theodosius made the state religion was the form adopted at this council of 325 CE, which gave rise to a namesake "creed."

ANSWER: First Council of **Nicaea**

[10] In 382 CE, Theodosius made a doomed peace with this tribe, which had recently killed Emperor Valens at Adrianople. They later sacked Rome under the leadership of Alaric.

ANSWER: **Visigoths**

024-09-12-14201

2. This figure was in love with the nymph Galatea, and killed her lover Acis in a fit of jealous rage. For 10 points each:

[10] Name this son of Thoosa, a shepherd who became drunk off strong wine and confusedly saw his ram lagging behind his sheep.

ANSWER: **Polyphemus**

[10] Polyphemus was one of these one-eyed creatures, whose other members included Brontes, Steropes, and Argos.

ANSWER: **cyclops** [or **cyclopes**]

[10] "The Godlike Polyphemus" was among a strong generation of heroes apostrophized by this figure, who received Telemachus and lost his son Antilochus to Memnon.

ANSWER: **Nestor** of Gerênia

023-09-12-14202

3. Northrup et al. developed the first microfluidic device for this technique. For 10 points each:

[10] Name this technique that uses Taq polymerase and cycles of denaturing, annealing, and elongating to amplify DNA.

ANSWER: **PCR** [or **Polymerase Chain Reaction**]

[10] The temperature cycling required to progress between different PCR steps makes use of this effect, in which an electric current passed through the junction between two materials causes a temperature gradient.

ANSWER: **Peltier** Effect

[10] This technique uses a dye such as SYBR green to determine the amount of PCR product at each cycle. The curves generated can then be used to measure the amount of DNA present in the original sample.

ANSWER: quantitative **real time** PCR [prompt on **QRT**-PCR]

001-09-12-14203

4. The Lamentation is a common theme in art. For 10 points:

[10] This student of Cimabue showed ten angels over the body of Christ in his depiction of the Lamentation found at the Arena Chapel in Padua, which contains this painter's most celebrated frescoes.

ANSWER: **Giotto** di Bondone [prompt on di **Bondone**]

[10] This artist, who depicted the death of St. Sebastian, showed Christ lying on a marble slab in his depiction of the scene. He also executed a work in which cherubs look down through a painted oculus in the Camera degla Sposi.

ANSWER: Andrea **Mantegna**

[10] Giovanni, the foremost member of this Venetian family of artists that also included his son Jacopo and brother Gentile, painted a version of the Lamentation and collaborated with Titian for his *Feast of the Gods*

ANSWER: the **Bellinis** [or Giovanni **Bellini**]

064-09-12-14204

5. Answer these questions about various types of nuclei, for 10 points each.

[10] This term refers to organisms such as archaea and bacteria whose cells lack nuclei.

ANSWER: **prokaryotes**

[10] In mathematics, a nuclear operator is one for which this operation may be unambiguously defined. For a square matrix, this is the sum of the diagonal entries and remains the same for all representation of a given matrix.

ANSWER: the **trace** (prompt on **tr**)

[10] In this approximation, the wavefunction of a molecule is found by first finding the electronic wavefunction given a stationary nucleus, then using the electron energy thus found in the molecular Hamiltonian with the nuclear position as a parameter. It works well because electrons are very light compared with atomic nuclei.

ANSWER: the **Born-Oppenheimer** approximation (accept **Oppenheimer-Born** approximation; prompt on **BO** approximation)

064-09-12-14205

6. This poet described a worker who stands "under a spreading chestnut tree" in "The Village Blacksmith." For 10 points each:

[10] Name this poet of "The Wreck of the Hesperus," who used the meter of the *Kalevala* to write *The Song of Hiawatha*.

ANSWER: Henry Wadsworth **Longfellow**

[10] This Longfellow poem proclaims "Lives of great men all remind us / We can make our lives sublime / And, departing, leave behind us / Footprints on the sands of time." It begins with its speaker insisting "Tell me not, in mournful numbers / Life is but an empty dream!"

ANSWER: "A **Psalm of Life**"

[10] Longfellow used dactylic hexameter to write this poem about a colonial love triangle. Its title character sends John Alden to give a marriage proposal to Priscilla Mullins, who replies "Why don't you speak for yourself, John?"

ANSWER: "The **Courtship of Miles Standish**"

004-09-12-14206

7. Answer some questions about the urban geography of the thrilling state of North Dakota. For 10 points each:

[10] This is North Dakota's capital. It contains the University of Mary and the excitingly named North Dakota Governor's Residence.

ANSWER: **Bismarck**

[10] The University of North Dakota is located in this other major North Dakota city, which was devastated by the 1997 flooding of the Red River of the North.

ANSWER: **Grand Forks**

[10] This southeastern city was picked as the original capital of North Dakota, but disgruntled Bismarck citizens stole the state records and held them hostage until it became the capital. More importantly, this city has the world's largest statue of a buffalo and was named after its founder's hometown in Virginia.

ANSWER: **Jamestown**

052-09-12-14207

8. Theodore Honey finds himself aboard an airplane that he and he alone knows is likely to crash in this man's novel *No Highway*, which eerily predicted the de Havilland Comet crashes. For 10 points each:

[10] Name this Australian author, an aeronautical engineer whose novels include *Round the Bend* and *A Town Like Alice*.

ANSWER: Nevil **Shute** [or Nevil Shute **Norway**]

[10] Nevil Shute may be best known for this novel about Dwight Towers, a submarine captain whose crew consists of the last survivors born in the northern hemisphere.

ANSWER: **On the Beach**

[10] *On the Beach* is one of many twentieth century post-apocalyptic novels along with this author's book *Oryx and Crake*. She wrote about Christian fundamentalists who take over the United States in *The Handmaid's Tale*.

ANSWER: Margaret **Atwood**

003-09-12-14208

9. Henry Kissinger's doctoral dissertation studied the machinations of this figure and Castlereagh. For 10 points each:

[10] Name this Austrian diplomat, who chaired the Congress of Vienna and orchestrated the Concert of Europe.

ANSWER: Klemens von **Metternich**

[10] Metternich tendered his resignation to Emperor Ferdinand I, who himself resigned a few days later to be succeeded by this Emperor, who ruled Austria-Hungary until the first years of the First World War.

ANSWER: **Franz Joseph I** [or **Ferenc József I**; or **Francis Joseph I**; prompt on **Franz Josef**]

[10] One of their key successes of Metternich and the Congress of Vienna was the creation of the German Confederation, which replaced this Confederation formed by Napoleon. It included such kingdoms as Bavaria and Westphalia.

ANSWER: Confederation of the **Rhine**

059-09-12-14209

10. One holder of this position refused to speak out against a massacre of 200,000 Timorese by the Indonesian government. For 10 points each:

[10] Name this US position held variously by Daniel Moynihan, Madeleine Albright, John Bolton, and Susan Rice.

ANSWER: United States **Ambassador to the United Nations** [or **UN Ambassador**; accept variants that convey the same information]

[10] This first American Ambassador to the UN was instrumental to founding the organization. He succeeded Cordell Hull as Secretary of the State and headed the Lend-Lease program.

ANSWER: Edward Reilly **Stettinius, Jr.**

[10] This UN Ambassador waited until "hell froze over" for Zorin's reply about the status of nuclear missiles in Cuba. He lost to Dwight Eisenhower twice for the presidency.

ANSWER: Adlai Ewing **Stevenson II**

020-09-12-14210

11. This opera is often paired on a double bill with Mascagni's *Cavalleria Rusticana*. For 10 points each:

[10] Name this Leoncavallo opera in which the clown Canio kills his unrequited love Nedda and her lover Silvio during a commedia dell'arte performance.

ANSWER: **I Pagliacci** [or *The Traveling _Players*]

[10] The role of Nedda is performed by this female singing voice, which has the highest human vocal range. Beverly Sills, Joan Sutherland, and Maria Callas sang in this voice.

ANSWER: **soprano**

[10] After discovering Nedda's infidelity, Canio sings this sad aria, in which he prepares himself to go onstage and perform. Its title is Italian for "Put on the costume."

ANSWER: "**Vesti la giubba**"

030-09-12-14211

12. In the late nineteenth century, missionaries successfully pressured the U.S. and Canadian governments into banning this practice. For 10 points each:

[10] Name this Native American ceremony, in which hosts received social status in proportion to how much food and gifts they shared with their communities.

ANSWER: **potlatch**

[10] The anthropological studies of the potlatch in this tribe led Ruth Benedict to call it "Dionysian," in contrast to the Zuni and Dobu, in *Patterns of Culture*.

ANSWER: **Kwakiutl** [or **Kwakwaka'wakw**]

[10] Benedict studied under this longtime professor at Columbia, who studied the Kwakiutl and attacked scientific racism in *The Mind of Primitive Man*.

ANSWER: Franz **Boas**

030-09-12-14212

13. He based his play *The Dog in the Manger* on one of Aesop's fables. For 10 points each:

[10] Name this Golden Age predecessor of Pedro Calderón de la Barca who wrote over fifteen hundred plays.

ANSWER: Felix **Lope de Vega** y Carpio

[10] The Golden Age playwright Tirso de Molina originated this character in his play *The Trickster of Seville and the Stone Guest*. He is the subject of a satirical Byron poem and Pushkin's *The Stone Guest*.

ANSWER: **Don Juan**

[10] This Spanish poet wrote in the culteranismo style, in opposition to the style of his rival Francisco de Quevedo. This author of *Las Soledades* would go on to inspire the Generation of '27.

ANSWER: Luis de **Gongora** y Argote

015-09-12-14213

14. This meeting saw a dramatic argument between Josef Frings and Alfredo Ottaviani. For 10 points each:
[10] Name this ecumenical council of the Catholic Church held between 1962 and 1965, which had such goals as to renew the church, restore Christian unity, and start a dialogue with the modern, contemporary world.

ANSWER: **Second Vatican** Council [accept **Vatican II**]

[10] One man in attendance at Vatican II was Bishop Albino Luciani, who would later become pope under this name. This pope would reign a mere 33 days in 1978 and conspiracy theorists suspect Mafia involvement in his death.

ANSWER: Pope **John Paul I** [prompt on **John Paul**]

[10] One crucial declaration passed at Vatican II was *Nostra Aetate*, which was originally titled "Decree on" these people. Important members of this group who converted to Catholicism include Teresa Benedicta and Jean-Marie Lustiger, and they were the subject of John Paul II's document *We Remember*.

ANSWER: **Jews**

052-09-12-14214

15. The Goldman-Hodgkin-Katz equation extends this equation to multiple ions. For 10 points each:

[10] Name this equation that calculates the electric potential of a cell.

ANSWER: **Nernst** equation

[10] To derive the Nernst equation, one must use these factors that produce the relative probability of finding a state i in a system at thermodynamic equilibrium at some temperature.

ANSWER: **Boltzmann** factors

[10] The Nernst equation can be expressed using the relationship between Gibbs free energy and this quantity, which increases in a closed system according to the Second Law of Thermodynamics.

ANSWER: **entropy**

032-09-12-14215

16. The protagonist of this play begins to have misgivings after the Latin words "Homo fuge" appear branded on his arm. For 10 points each:

[10] Name this Elizabethan play whose title character boxes the ears of the pope before going to the court of Charles V, summoning the spirit of Alexander the Great, and causing antlers to sprout from Benvolio's head.

ANSWER: **Doctor Faustus**

[10] In this play, the slave Ithamore and the title character poison Abigail and other nuns. Its title character is scalded to death after ironically falling into his boiling cauldron.

ANSWER: *The **Jew of Malta***

[10] Both *Doctor Faustus* and *The Jew of Malta* were written by this English author, who also wrote the poem "The Passionate Shepherd to his Love."

ANSWER: Christopher **Marlowe**

020-09-12-14216

17. The exchange of these particles governs the characteristic interactions between quarks. For 10 points each:

[10] Name these standard model particles that therefore mediate the strong force.

ANSWER: **gluons**

[10] Gluons are unique among mediators in that they carry the six types of this quantity, the formal charge of the interaction they mediate. The gauge theory corresponding to this quantity is QCD [read as QCD].

ANSWER: **color** charge

[10] In part because gluons carry color charge, quarks can move relatively freely if they are close together. That fact is this property of QCD, an aspect of quark confinement.

ANSWER: **asymptotic freedom**

023-09-12-14217

18. During an 1853 outbreak of this disease in London, the prevailing theory that it was caused by noxious gases emanating from piles of manure was largely debunked. For 10 points each:

[10] Name this intestinal disease caused by a bacterium of genus *Vibrio*. Its severe form can result in massive diarrhea, rapid dehydration, shock, and eventually death.

ANSWER: **cholera**

[10] This epidemiologist, already known as an anesthesiologist for his pioneering use of ether and chloroform, localized the source of the epidemic to the Broad Street Well.

ANSWER: John **Snow**

[10] Though Filippo Pacini had isolated the bacterium years earlier, this German bacteriologist and namesake of a series of postulates 1884 rediscovered *Vibrio cholerae*, and linked it to cholera, eventually convincing other scientists that the germ theory of cholera is correct.

ANSWER: Robert **Koch**

003-09-12-14218

19. This philosopher derided calculus in his *The Analyst*. For 10 points each:

[10] Name this idealist philosopher who wrote *A Treatise Concerning the Principles of Human Knowledge*.

ANSWER: George **Berkeley**

[10] Berkeley's idealism centered on the dictum that "to be" is to be *this*. The fact that God does this action means that everything in the world exists.

ANSWER: **perceived** [accept all word forms; prompt on close equivalents like to be **thought** about; accept **to be is to be perceived**; or **esse es percipi**]

[10] In this book, Berkeley presented the "Master Argument" claiming that objects cannot exist outside of the mind. Its second title character advocates Berkeley's idealist views.

ANSWER: ***Three Dialogues between Hylas and Philonous***

022-09-12-14219

20. This composer's fear of the ninth symphony curse led him not to label *The Song of the Earth* as his ninth symphony. 10 points each:

[10] Name this Austrian composer of the song cycle *Kindertotenlieder*, the *Resurrection* symphony, and the *Symphony of a Thousand*.

ANSWER: Gustav **Mahler**

[10] Mahler's second, third, and fourth symphonies frequently quote from this collection of German folk poetry edited by Achim von Arnim and Clemens Brentano. Mahler wrote many lieder based on this collection, including "Revelge" and "Where the Beautiful Trumpets are Blowing."

ANSWER: *Des **Knaben Wunderhorn*** [or *The **Youth's Magic Horn***]

[10] The musical curse of the ninth supposedly zinged this Romantic Austrian composer, who died before he could complete his ninth symphony. His completed symphonies include his second, called the *Symphony of Pauses*, and his third, dedicated to Richard Wagner.

ANSWER: Anton **Bruckner**

052-09-12-14220

21. This man created the Special Studies Project headed by Henry Kissinger. For 10 points each:

[10] Name this governor of New York who served as Gerald Ford's vice president.

ANSWER: Nelson Aldrich **Rockefeller**

[10] Rockefeller was governor of New York during this event, during which inmates took a guard hostage and requested better living conditions. It ended with twenty-nine inmates and ten hostages dead.

ANSWER: **Attica** Prison Riots

[10] Nelson Rockefeller lost the 1964 Republican primary to this radical, against whom the Daisy Girl ads were targeted by Lyndon Johnson's campaign.

ANSWER: Barry Morris **Goldwater**

022-09-12-14221