

1. This figure exchanges insults with a boatman with a name meaning "Grey-beard" who refuses to ferry. One member of this deity's retinue is in atonement for scraping the marrow out of a thighbone, and the sorceress Groa ran off while healing this son of Fyorgin. This god lifted and brought back a huge brewing-kettle for Aegir. A piece of (\*) whetstone was stuck in his head after he got stuck under the corpse of Hrungnir. This employer of the servants Roskva and Thialfi was once at sea with Hymir, who cut his fishing line, and waited until sunlight so the dwarf Alvis would turn to stone. He once disguised himself as a bride and flew in his goat-driven chariot to reclaim a prized weapon. For 10 points, name this Norse god whose use of Mjolnir causes thunder.

ANSWER: **Thor** [or **Donar**; or **Thunor**]

<Jackson>

2. The Eravisci founded the settlement of Ak-Ink in this city, which was known as Aquincum in Roman times. During World War II, Rodion Malinovsky led a one hundred day siege of Axis troops in Castle Hill in this city. Following the destruction of this city by the Mongols in 1241, it was resettled on orders from Bela IV. A government in this city was granted expanded autonomy thanks to the "passive resistance" championed in the Easter Article by Ferenc Deak. This city became a national capital after the (\*) 1920 Treaty of Trianon. Under the policy of Ausgleich, it became the secondary capital of the Dual Monarchy in 1867. Six years later, it was unified from two separate cities on opposite sides of the Danube River. For 10 points, name this capital of Hungary.

ANSWER: **Budapest** [accept either **Buda** or **Pest**]

<Bentley>

3. The gold color of gold occurs due to the relativistic contraction of the 6th of these entities. The occupants of the outermost one of these tend to stay unpaired in the inert pair effect. Their angular wavefunction is a spherical harmonic in which the second parameter is 0 and is equal to one over the square root of four pi. They have a number of radial nodes equal to one less than n, and never have any (\*) angular nodes. For the simplest one of them, no nodes pass through the nucleus because its azimuthal quantum number is 0. These constructs overlap to form sigma bonds. They're the first orbitals to completely fill for an energy level. For 10 points, name these spherically symmetric atomic orbitals which can hold two electrons.

ANSWER: **s** orbitals [prompt on "atomic orbital" or "orbital"; do NOT accept "molecular orbital"]

<Jose>

4. A sculptor from this country created four slabs of rock with round holes in them for her large Four Square (Walk Through) sculpture. A couple hold onto an infant in a World War II memorial designed by an artist from this country called The Family Group. An artist from this country created For the Love of God, a platinum (\*) skull covered in over eight thousand diamonds, and broke onto the art scene with a work containing a tiger shark preserved in formaldehyde titled The Physical Impossibility of Death in the Mind of Someone Living. Another sculptor from this country was inspired by Chac-Mools to create various Reclining Figures. For 10 points, name this country home to Damien Hirst and Henry Moore.

ANSWER: **England** [or Great **Britain**; or the **U**nited **K**ingdom]

5. This author created a character who works at a euthanasia center where he falls in love with Clara, a bearded woman. Lord Copper accidentally sends the nature reporter William Boot to the warring country of Ishmaelia in another of this man's novels. Miles Plastic appears in this man's novel *Love Among the Ruins*, while in another of his novels, Samgrass of All Souls helps maintain the Oxford career of the owner of the teddy bear Aloysius. In that novel by this author of (\*) *Scoop*, Julia decides not to leave her husband Rex Mottram for the protagonist, who meets the Marchmains when Sebastian Flyte brings him to the title estate. For 10 points, name this English author who created Charles Ryder in *Brideshead Revisited*.

ANSWER: Evelyn Waugh [or Arthur Evelyn St. John Waugh]

<Kothari>

6. This action was spurred by a letter using the phrase "possible, I suppose." Ron Wyden was the only Democrat to support this event, during which Ted Cruz's reading of Tweets gave another person the chance to eat a Milky Way. One memorable line spoken during this event was "you never get notified you've been accused...your notification is the buzz of propellers...in the seconds before you're (\*) killed." This action, which delayed but did not prevent the confirmation of John Brennan as director of the CIA, was spurred by Eric Holder's refusal to disavow drone strikes on American citizens within the United States. For 10 points, identify this March 6 to March 7 event in which a Senator from Kentucky spoke for twelve hours.

ANSWER: **Rand Paul's filibuster** [or any answer that mentions **Rand Paul** and a **filibuster** and does not include incorrect information; accept descriptions including but not limited to "filibuster of John Brennan" or "filibuster regarding drones"; prompt on partial answers, including prompting if no first name is given, as **Rand Paul** is required to distinguish from "Ron Paul," which is incorrect if given]

<Weiner>

7. This poem relates how Daedalus twice tried and failed to fashion a golden sculpture of Icarus's death to adorn the gates of the building where Deiphobe writes on oak leaves. At one point in this poem, roots and vines begin to bleed before revealing themselves as the remains of the slain Polydorus. This poem's title character, an embodiment of *pietas*, is referred to in its opening line, "I sing of (\*) arms and the man". The sight of Pallas's belt enrages its protagonist, who then denies mercy to the Rutulian chieftain Turnus. Its protagonist flees home carrying his father Anchises and takes his son Ascanius to Carthage, where he breaks Dido's heart. For 10 points, name this epic poem about a Trojan prince, written by Virgil.

ANSWER: *The <u>Aeneid</u>* [or the <u>Aeneis</u> or the <u>Aeneidos</u>]

<Mehigan>

8. Ralph Kimball is a proponent of using a star schema to define a type of these objects used for business intelligence known as a warehouse. HBase supports large types of these entities and interfaces with Hadoop. These entities are typically backed by an audit trail, and they can be traversed with cursors. Data types in these entities can be NVARCHARs. Durability, isolation, (\*) consistency, and atomicity make up the four ACID rules that govern transactions in these entities. Linking different parts of these entities together is often done by joining on foreign keys. These entities are usually organized into tables and columns. For 10 points, name these constructs from computer science that hold information, often queried using SQL ["sequel"].

ANSWER: Relational **database**s [accept **data warehouse** during first sentence]

9. A landscape by this artist is divided by two vertical lines that turn out to be two lances held up by Cossacks in front of a blue mountain. His early works include various landscapes made during his stay in Murnau with his mistress Gabriele Munter. He drew inspiration from his friend Arnold Schoenberg to argue that painting should be (\*) abstract to express the inner self, which is reflected in the titles of his *Improvisations* and his ten *Compositions*. This author of *On the Spiritual in Art* also painted a work which lent its name to a German expressionist movement in the 1910s. For 10 points, name this Russian-born painter of *The Blue Rider*.

ANSWER: Wassily **Kandinsky** 

<Rosenberg>

10. During one conflict, this people abandoned log houses in favor of thatched-roof structures called *chickees*. One of their leaders fathered Bolek and was named for his large cattle holdings. Duncan Clinch lost at the Withlacoochee River to this group, whose branches include the Miccosukee. Micanopy led the ambush of Francis Dade by this tribe. The tribe's lands were a frequent haven for runaway (\*) slaves, giving rise to their "Black" branch. The best known leader of this tribe, which signed the Treaty of Payne's Landing, was tricked into attending a peace conference by Thomas Jesup. This group joins the Cherokee, Chickasaw, Creek, and Choctaw as one of the Five Civilized Tribes. Osceola led, for 10 points, what Native American tribe from Florida?

ANSWER: **Seminole**s [or **Seminole** Tribe or **Seminole** People; prompt on "Creek"]

<Bentley>

11. In Yemen, these people are called Mori. A subset of these people names the Amoraic era, which lasted seven generations after the Tanna'im passed away. They're not Islamic prophets, but one of these people argued that destroying a single life is akin to destroying the whole earth and responded to a challenger by reciting the Golden Rule standing on (\*) one foot. Transcribed dialogue between these people makes up the *Gemara*. These people created a type of law called *halakhah* which is taught at *yeshiva* schools. Their historical examples include the creator of the Golem and Hillel; today, a cantor usually helps them at the *bimah* during services. For 10 points, name these learned men who lead Jewish synagogues.

ANSWER: <u>rabbi</u>s [or <u>rebbe</u>; or <u>rav</u>i; be especially lenient with vowels; prompt Jewish <u>scholars</u>, Jewish <u>wise men</u>, Jewish <u>sage</u>s, Jewish <u>teacher</u>s, etc.; prompt <u>Jew</u>s]

<Jackson>

12. The book *Poultry Breeding and Genetics* suggests that skeletons of fighting birds found at this site may have been the first domesticated chickens. The indigenous name for this place is often translated as "city of the cockerel." A ten-centimeter bronze statue of a dancing girl wearing only armbands is dated before this place's "squatter period." A soapstone "priest-king" and the Pashupati Siva seal are the most famous artifacts from this site in the (\*) Larkana District. Its citadel mound contained structures identified as the College of Priests and the bitumen-sealed Great Bath. For 10 points, name this site in the Sindh province of Pakistan, which dates to the 27th century BCE and was a center of the Indus Valley civilization along with Harappa.

ANSWER: Mohenjo-Daro

<Weiner>

13. One man with this surname helped fight yaws with the National Public Health Service and bragged about his excommunication in *Memoirs of a Third World Leader*. The PEPPADEP program wiped out the pork industry of another leader with this surname, who married Michele Bennett to repair relations with the mulatto community. The first leader with this name ordered his country's black dogs wiped out after becoming convinced of the shapeshifting powers of Clement (\*) Barbot, who led that man's brutal Tonton Macoutes. The younger leader with this last name was opposed by Jean-Bertrand Aristide and returned to once again rob his country after a devastating 2010 earthquake. For 10 points, give this surname of Haitian rulers nicknamed "Papa Doc" and "Baby Doc".

ANSWER: **Duvalier** 

<Bentley>

14. The Bayreuth Festival re-opened in 1951 with a performance of this work, conducted by Wilhelm Furtwängler. The second movement of this piece is dominated by the rhythm of a dotted quarter - eighth - quarter, first played twice by the strings, then by solo timpani, and then tutti, before a fugal scherzo for strings begins. The finale of this work contains an imbedded "Turkish march" in 6/8. In the finale of this symphony, a (\*) bass soloist enters on the words "O Freunde, nicht diese Töne!", before the chorus takes up a melody in D major that was introduced at the beginning of the movement by the celli and double basses. For 10 points, name this symphony that features a setting of Schiller's "Ode to Joy", the final symphony of Ludwig van Beethoven.

ANSWER: <u>Beethoven's Symphony No. 9</u> in D minor, <u>Op. 125</u> "<u>Choral</u>" [accept composer + symphony number, nickname, or opus number; obvious equivalents like "Beethoven's Ninth Symphony"]

<Lawrence>

15. The tennis racket theorem describes an asymmetric instability that arises when this quantity's principal components are all distinct. The diagonalization of this quantity yields three values which define the axes of Poinsot's ellipsoid. Its scalar form can be calculated as the integral of r-squared dm, and it is unchanged when the object is stretched parallel to the (\*) axis of rotation. Given its value at the center of mass, it can be calculated for the same object about a parallel axis. This quantity equals torque divided by angular acceleration, as well as angular momentum divided by angular velocity. For 10 points, name this quantity symbolized I, the rotational analog of mass.

ANSWER: mass **moment of inertia** [or **rotational inertia**; prompt on "moment"; do not prompt on "inertia"]

<Chen>

16. Refugees in a civil war in this country were able to take shelter in camps named for the Hanoverian Queen Frederica. Prisoners from the Italian Acqui Division were brutally massacred in this country during Operation Achse. In 1975, CIA officer Richard Welch was assassinated here by Revolutionary Organization 17 November. The EAM resisted this country's "triple occupation" from Germany, Italy and Bulgaria during World War II. This country's constitutional monarchy began with (\*) Otto I in 1833 and was ended by the Colonels Regime in 1973. This country and an eastern neighbor were the major recipients of aid under the Truman Doctrine. For 10 points, name this southern European nation that declared independence from the Ottomans in 1821, with capital at Athens.

ANSWER: **Greece** [or **Ellada** or **Ellas** or **Hellenic Republic**]

17. This poet admitted that "it was the first ride" and that he "was happy to see how nice she acted" before describing how he turned "the corner of Divinity avenue" in a "Brand-new" car. In one poem, he swears "by all flowers" that "kisses are a better fate than wisdom" before concluding "life's not a paragraph and death i think is no parenthesis". This poet of "since (\*) feeling is first" claimed that "only the snow can begin to explain how children are apt to forget to remember" in a poem about "noone" and her husband, set in a place with "up so floating many bells down." He also fictionalized his experiences in World War I in *The Enormous Room*. For 10 points, name this poet of "anyone lived in a pretty how town", known for his unusual orthography.

ANSWER: Edward Estlin Cummings

<Mehigan>

18. This thinker assessed the motives of Philippe Pinel and Samuel Tuke in one book, and noted that the structure of confession was transferred to the therapist's office in a half-complete set of volumes. He claimed that each era has a system of knowledge called an *episteme*. This author of "What is an Author?" discussed the emptying of leper colonies and the Renaissance image of the Ship of Fools in a work describing the "Great (\*) Confinement," a response to un-reason. This archaeologist of knowledge termed the ability to "make live and let die" "bio-power," and compared a surveyed society to the Panopticon prison. For 10 points, name this theorist of discourse, the bald French author of *Madness and Civilization* and *Discipline and Punish*.

ANSWER: Michel Foucault

<Jackson>

19. This organelle is isolated using NP-40 detergent, crushed, then imaged via autoradiography in its namesake run-on assay. Mutations in proteins found in this organelle are responsible for Emery-Dreifuss muscular dystrophy and Hutchinson-Gilford progeria. The Ran GTPase is used for transport into and out of this organelle, which occurs through pore complexes. This organelle contains both (\*) speckles and coiled bodies. This structure uses intermediate filaments called lamins to support the inner surface of its double membrane. This organelle also contains a structure responsible for ribosome production, and is darkly staining because it contains chromatin. For 10 points, name this organelle only present in eukaryotic cells, which contains the cell's DNA.

ANSWER: nucleus

<Mukherjee>

20. This character has a nightmare in which an old peasant rummaging through a sack informs her that she will die in childbirth. This character's idyllic time in Italy is spoiled soon after Mikhailov is hired to paint her portrait. This character sneaks into her old home to bring birthday presents to her son Seryozha. After consulting a French psychic, this character's husband refuses to (\*) divorce her. She displays improper grief when the horse Frou-Frou falls during a race. At the opening of the novel, this character mediates a marital dispute between Stepan Oblonsky and her own sister Dolly. In delirious anticipation of the return of her lover Count Vronsky, she throws herself under a train. For 10 points, name this title character of a Leo Tolstoy novel.

ANSWER: Anna Arkadyevna Karenina [accept either underlined portion; prompt on "Karenin"]

<Gupta>



21. In a rare non-clown role, Robert Armin originated this character. Coleridge likened one of this character's speeches to "the motive-hunting of motiveless Malignity"; this character begins that speech by saying "Thus do I ever make my fool my purse". In one scene, he sings the drinking song "King Stephen was a worthy peer", while his last line is "From this time forth I never will speak word." This character warns (\*) Brabantio of the "beast with two backs" and later advises another character to beware jealousy, "the green-eyed monster". He is arrested after stabbing his wife Emilia, and he conspires with Roderigo in an attempt to kill Michael Cassio. For 10 points, identify this scheming villain of Shakespeare's *Othello*.

ANSWER: <u>Iago</u>

<Carson>

22. This law is used to determine the position of the sample in the WDS technique, which measures trace elements. The phenomenon described by this law breaks down at the Henderson limit. This law is used to determine allowed reflections using the definitions of the h, k, and l planes. One method of deriving it involves setting delta-k equal to G from the von Laue equations, then applying the properties of the reciprocal (\*) space. A 54 volt peak confirmed that this law applies to electrons in the Davisson-Germer experiment when using the de Broglie wavelength. This law states that two d times the sine of theta equals n times the wavelength. For 10 points, name this law which gives the angles at which scattered X-rays from a crystal interfere constructively.

ANSWER: **Bragg**'s Law

<Mukherjee>

23. After this event, the reigning monarch took to living in a tent city in the Ajuda Hills. In the wake of this event, Gabriel Malagrida got into a dispute with the Marquis of Pombal, who issued the command, "bury the dead and take care of the living." Court rivalries exploded into mass-executions in the Tavora Affair in the aftermath of this event. "Deluded philosophers who cry, 'All is (\*) well" were attacked in a poem about this event, which took place on All Saints' Day and imparted a permanent phobia of masonry to King Joseph I of Braganza. Men raced on horseback to escape the swelling Tagus River during this event, which had a major influence on Voltaire. For 10 points, name this 1755 natural disaster that destroyed much of the capital of Portugal.

ANSWER: 1755 Lisbon Earthquake

<Bentley>

24. These areas may contain pearly white balloons made out of hydromagnesite, and gypsum structures in these regions are given names such as "flowers," "needles," and "beards." Anchialine examples of these entities contain both fresh- and saltwater. Some organisms that inhabit these areas are affected by a fungus called *Geomyces destructans*, which afflicts its host with (\*) white nose syndrome. One common type of structure within these regions is made out of "soda straw" and is a type of speleothem that joins with its counterpart to form a column. Lakes in these areas may contain blind fish and troglobites. For 10 points, name these underground regions that contain stalagmites and stalactites.

ANSWER: <u>caves</u> [or <u>caverns</u>; accept word forms]

<Jose>



1. For 10 points each, name these substances released by mast cells in response to allergens.

[10] This neurotransmitter primarily regulates the gastrointestinal system but can also signal inflammation.

It may be better known as a mood regulator whose reuptake is inhibited by some antidepressants.

ANSWER: <u>serotonin</u> [or <u>5-HT</u>; or <u>5-hydroxytryptamine</u>]

[10] Many common anti-allergy medications work by competitively inhibiting binding of this molecule to its H1 receptors, thus preventing swelling, inflammation, and smooth muscle contraction.

**ANSWER:** histamine

[10] While coumarin derivatives are typical orally-taken anticoagulants, this proteoglycan or one of its low-molecular weight derivatives is the most commonly injected anticoagulant. It works by bringing thrombin and antithrombin together.

ANSWER: **heparin** [or **heparan** sulfate]

<Wynne>

2. One residential area in the southwestern part of this city is known as Malabar Hill. For 10 points each:

[10] Name this city, whose main section is located on Salsette Island in the mouth of the Ulhas River.

ANSWER: **Mumbai** [or **Bombay**]

[10] Mumbai is the most populous city in this country.

ANSWER: Republic of **India** 

[10] Mumbai is the capital of this state along the Arabian Sea, which is the second most populous state in

India.

ANSWER: Maharashtra

<Morlan>

3. A former member of this group wrote the book *No Easy Day*, and its founder went on to write the *Rogue Warrior* novels. For 10 points each:

[10] Identify this special ops unit that conducted the successful raid on Osama bin Laden's compound in Abbottabad in 2011.

ANSWER: <u>SEAL Team Six</u> [or U.S. Naval Special Warfare <u>Dev</u>elopment <u>Group</u> or <u>NSWDG</u> or <u>DEVGRU</u> or <u>ST6</u>]

[10] A helicopter accident in this country caused the death of four members of SEAL Team Six, or DEVGRU, during a mission to rescue its Governor General Paul Scoon. This Caribbean nation was the target of Operation Urgent Fury.

ANSWER: Grenada

[10] Navy SEALs were involved in the controversial Operation Praying Mantis during this war. The *USS Stark* was attacked by a fighter jet participating in the "Tanker War" phase of this conflict.

ANSWER: Iran-Iraq War

- 4. Answer these questions about the Titanomachy, the war between the Titans and their eventual Olympian successors, for 10 points each.
- [10] This leader of the Titans lost to his son Zeus. This being, identified by the Romans with Saturn, attempted to swallow all his children borne by Rhea.

ANSWER: **Cronus** [or **Kronos**]

[10] A mountain of this name in Crete is where Rhea hid her last child, Zeus, who was suckled there by the goat Amalthea. Another mountain of this name in Phrygia overlooked Troy.

ANSWER: Mount Ida

[10] These three creatures were rescued from Tartarus alongside the Cyclopes by Zeus. Briareus was one of these key allies of the gods, who could throw dozens of mountains at once.

ANSWER: <u>Hecatonchires</u> [or <u>Hundred-Handed</u> Ones; or <u>Centamani</u>]

<Jackson>

- 5. The Cave Sura was the basis for the section of this novel in which its title character is taught lessons by a hermit who eventually reveals himself to be the angel Jesrad. For 10 points each:
- [10] Identify this 1747 novel whose philosophizing protagonist saves Almona from an obligation to burn herself alive, falls in love with the Babylonian queen Astarte, and uses his detective skills to deduce the existence of the Queen's spaniel and the King's horse.

ANSWER: **Zadig**, or the Book of Fate [or **Zadig**, ou la Destinee]

[10] *Zadig* is often published together with a novel featuring this character, who catches syphilis from Paquette and is hanged in an *auto-da-fe*. At the end of that novel, this devotee of Leibniz is told "We must cultivate our garden".

ANSWER: Doctor **Pangloss** 

[10] Doctor Pangloss is a character from *Candide*, which, like *Zadig*, was written by this Enlightenment-era French author and philosopher.

ANSWER: **Voltaire** [or François-Marie **Arouet**]

<Carson>

- 6. A Baroque painter from this country was known for painting street urchins, as in *The Young Beggar*, and was influenced by a religious artist from this country who painted a white-clad Saint Serapion with arms bound by ropes. For 10 points each:
- [10] Name this country, also home to the realist painter of *The Clubfoot* who painted a saint looking horrified just before getting hoisted onto a cross in *The Martyrdom of Saint Philip*.

ANSWER: Kingdom of **Spain** [those painters are Bartolome Murillo, Francisco de Zurbaran, and Jose de Ribera]

[10] Murillo was a contemporary of this other Spanish painter, who depicted himself looking outward at the viewer while working on a canvas in his giant painting *Las Meninas*, or *The Maids of Honor*.

ANSWER: Diego Velazquez

[10] Las Meninas is located in this Madrid art museum - the largest in Spain - along with many other works by Velazquez such as *The Surrender at Breda*.

ANSWER: Museo del Prado

<Rosenberg>

- 7. Humbert of Silva Candida was an early instigator of this conflict, and it culminated with the deposition and excommunication of Holy Roman Emperor Henry IV. For 10 points each:
- [10] Identify this medieval conflict over the power to install bishops and abbots.

ANSWER: **Investiture** Controversy [or **Investiture** Contest]

[10] The Investiture Controversy was ended by an 1122 Concordat at this German city. The Jewish cemetery in this city may be the oldest in Europe.

ANSWER: Worms

[10] Henry IV was excommunicated by the seventh pope of this name, whose namesake reforms included condemning simony and enforcing papal celibacy. An earlier pope of this name carried out a major calendar reform.

ANSWER: **Gregory** [or **Gregorius** or **Gregorio**]

<Bentley>

8. This woman argued for Alaskan statehood in *Ice Palace* and wrote a novel in which Selina Peake De Jong's hard work on a farm allows her son Dirk to attend the University of Chicago. For 10 points each: [10] Identify this author of *Show Boat* and *So Big*.

ANSWER: Edna Ferber

[10] Ferber's novel *Cimarron* is set in both the territory that became this U.S. state and, later, the fictional city of Osage in it. In Steinbeck's *The Grapes of Wrath*, the Dust Bowl drives the Joad family out of this state.

ANSWER: Oklahoma [prompt on "Okies"]

[10] In the 1920s, Ferber belonged to this literary group, where she maintained a long-running rivalry with another member, Alexander Woolcott. Robert Sherwood and Dorothy Parker were among its other members.

ANSWER: the <u>Algonquin</u> <u>Round Table</u> [accept either underlined portion; or the <u>Algonquin</u> Group; or the <u>Vicious Circle</u>]

<Bentley>

- 9. In this opera, Santuzza details her seduction in "Voi le sapete", shortly after the singing of the Easter hymn. For 10 points each:
- [10] Name this one-act opera by Pietro Mascagni, in which hot-blooded Sicilians Turiddu and Alfio duel over Lola. It is often paired in performance with Leoncavallo's *Pagliacci*.

ANSWER: *Cavalleria Rusticana* [or *Rustic Chivalry*]

[10] Cavalleria Rusticana and Pagliacci are operas in this style, defined by its realistic and often violent depictions of unromanticized everyday life.

ANSWER: verismo

[10] In this aria from *Pagliacci*, Canio tells himself to laugh, in spite of his misfortune, as he applies his make-up. Caruso's recording of it was the first record to sell a million copies.

ANSWER: "Vesti la giubba"

<Lawrence>

- 10. A dipole antenna is modeled by taking a negative and positive one of these constructs and separating them by d, the distance. For 10 points each:
- [10] Name these idealized zero-dimensional objects which have only translational degrees of freedom.

They either have a positive value or a negative value for the electric charge they carry.

ANSWER: **point** charge [accept **test charge** as well.]

[10] For a Gaussian surface entirely inside a conductor, and not any other material, there will be this many point charges within the Gaussian surface.

ANSWER: **zero** or  $\mathbf{0}$ 

[10] For a single point charge, the electric potential falls off as this function of r increases. Please leave out any coefficients from your solution.

ANSWER: 1/r [or one over r]

<Jose>

- 11. The relationship between the central characters of this play is complicated by the announcement, then later the cancellation, of a visit from their "pen-pal", a white woman named Ethel Lange. For 10 points each:
- [10] Identify this play, the first in its author's "Family Trilogy", whose title refers to the familial bond between the darker-skinned Zachariah and his light-skinned brother Morris.

ANSWER: The **Blood Knot** 

[10] This anti-apartheid South African playwright of *Sizwe Bansi is Dead* wrote *Blood Knot* and *Master Harold...and the boys*, as well as the novel *Tsotsi*.

ANSWER: Athol **Fugard** [or Harold Athol Lanigan **Fugard**]

[10] Two cellmates at a fictionalized version of a real South African prison rehearse for a production of *Antigone* in a Fugard play titled for one of these locations. Aldous Huxley's final novel is a utopian work also titled for one of them.

ANSWER: an island [accept word forms; accept The Island]

<Carson>

- 12. This author of *The Ethics of Ambiguity* argued that financial independence was a prerequisite for female authenticity in her era. For 10 points each:
- [10] Name this French thinker who described the plight of women in existentialist terms in *The Second Sex*. ANSWER: Simone de **Beauvoir**
- [10] According to *The Second Sex*, men posit woman as essentially having this status, and women are taught to think of themselves in this way rather than as subjects. Emmanuel Levinas said that a "face-to-face" encounter with this type of being is needed to define the Self.

ANSWER: the **Other** [or le **Autre**]

[10] This Palestinian intellectual argued that the East had been constructed as a timeless Other in order to further Western imperial designs in his *Orientalism*.

ANSWER: Edward Wadie Said

<Jackson>

- 13. Vladimir Nabokov's *Pale Fire* takes its title from this play, which contains a banquet scene in which the guests are surprised to find dishes filled with nothing but rocks and hot water. For 10 points each:
- [10] Identify this play whose formerly-generous protagonist abandons civilization to live in a cave, where he finds a large amount of gold, most of which he gives to the exiled Alcibiades.

## ANSWER: Timon of Athens

[10] Another Shakespeare play set in Athens is this one, in which Oberon's servant Puck uses the juice of love-in-idleness to mess around with the relationships of Demetrius, Lysander, Helena, and Hermia.

## ANSWER: A Midsummer Night's Dream

[10] Athens was also a major setting of *The Two Noble Kinsmen*, which was coauthored by Shakespeare and this playwright, who was best known for collaborating on *The Maid's Tragedy*, *Cupid's Revenge*, and other plays with Francis Beaumont.

ANSWER: John Fletcher

<Carson>

14. Under Hassan-i Sabbah, this group took control of the fortress of Alamut in 1090. For 10 points each: [10] Identify this religious sect which now lends its name to a political killing.

ANSWER: **Assassin**s [or **?ashsh?sh?n**; prompt on "Nizari Isma'iliyyah"]

[10] The Assassins arose in part due to a dynastic struggle between Nizar and al-Musta'li to rule this Islamic caliphate. It ruled Egypt until 1171 and takes its name from a daughter of Muhammad.

ANSWER: **Fatimid** Caliphate [or **Fatimid** Dynasty]

[10] Hassan-i Sabbah was driven to Alamut by Nizam al-Mulk, a vizier who ably served both this man and his son Malik Shah. This successor of Tughril nearly wiped out the Varangian Guard in one battle.

ANSWER: <u>Alp Arslan</u> [or Diya ad-Dunya wa ad-Din Adud ad-Dawlah Abu Shuja Muhammad <u>Alp Arslan</u> ibn Dawud; or <u>Muhammad bin Dawud Chaghri</u>; accept "<u>Heroic Lion</u>," if you must]

<Bentley>

- 15. Name these northern European languages, for 10 points each.
- [10] This language with a distinctive "sj" sound is the most widely spoken Scandinavian tongue and is a recognized national language in two countries.

#### ANSWER: **Swedish** [or **Svenska**]

[10] This language is the most divergent of Scandinavian languages from Old Scandinavian. It uses a distinctive "stod," a glottal stop, and was the native tongue of comparative linguistics pioneer Rasmus Rask. It was formerly the official language of Greenland.

#### ANSWER: **Danish** [or **Dansk**]

[10] An intermediate form between Icelandic and West Norwegian, this diphthong-rich language has fifty thousand native speakers. Since it was outlawed by Danes in 1536, its modern written form wasn't created by Venceslaus Ulricus Hammershamb until 1854.

ANSWER: **Faroese** [or **Førovsk**]

<Weiner>

- 16. Images from *Cassini* of Enceladus are evidence for the existence of these objects near Enceladus' tiger stripes region. For 10 points each:
- [10] Name these objects that are typically powered by tidal friction. Sotra Patera is believed to be one of these objects that ejects ice rather than molten rock.

## ANSWER: **cryovolcano** [prompt on **volcano**]

[10] Sotra Patera is located on this largest moon of Saturn. This moon was visited by the *Huygens* probe and is believed to have a surface covered by methane lakes and rivers.

ANSWER: Titan

[10] Cryovolcanoes were first observed on this moon that was discovered by William Lassell. This is the only known object to exhibit cantaloupe terrain.

ANSWER: Triton

<Hothem>

- 17. Although he wrote such operas as *The Sunken Bell*, this composer is better known for his orchestral works such as *Gli uccelli*, *or The Birds*, as well as a work that contains such sections as "Circuses" and "October Festival." For 10 points each:
- [10] Name this Italian composer who is best remembered for a "trilogy" of works that attempt to visually depict a certain city. One of those works depicts various fountains, while another depicts trees near the Villa Borghesse.

## ANSWER: Ottorino Respighi

[10] Respighi's aforementioned trilogy is titled after this Italian city, which is the location of the Trevi and Triton Fountains as well as the Appian Way, all of which are depicted in the trilogy.

#### ANSWER: Rome

[10] A set of suites by Respighi titled *Ancient Airs and Dances* is largely based off of ancient music for this stringed instrument, whose European variety features a pegbox bent away from the neck and rounded body. The mandolin is a descendant of this instrument.

ANSWER: lute

<Berend>

- 18. For 10 points each, answer these questions about religious traditions in Mexico.
- [10] This female figure appeared on Tepeyac hill to the peasant Juan Diego in 1531, leaving flowers behind. She has since become a religious and political icon of Mexico.

# ANSWER: <u>Virgin</u> of <u>Guadalupe</u> [or <u>Our Lady of Guadalupe</u>; or <u>Virgen de Guadalupe</u>; or <u>Nuestra Señora de Guadalupe</u>; prompt on <u>Mary</u>; prompt on <u>Virgin</u> Mary]

[10] This Mexican holiday, celebrated on November 1st and 2nd, draws on All Saint's Day and pre-Christian ancestor worship. It includes the laying of marigolds on altars.

### ANSWER: **Day of the Dead** [or **Día de los Muertos**]

[10] This cheerful hat-wearing skeleton woman is an icons of Day of the Dead. Recently, she has been confused or conflated with Santa Muerte, a being worshipped by Mexican drug cartels whose head is also a skull.

ANSWER: La Calavera **Catrina** [or **catrina**s]

- 19. While natural selection is mostly nonrandom, this mechanism of evolution is highly random. For 10 points each:
- [10] Name this process by which the frequency of alleles in a population changes over time largely due to chance events.

ANSWER: genetic drift

[10] One example of genetic drift is this effect in which the population size suddenly and significantly contracts. It is contrasted with the founder effect in that it rarely involves migration.

ANSWER: **bottleneck** effect

[10] A bottleneck in the evolutionary history of humans may have occurred roughly 75,000 years ago following the explosion of this Indonesian supervolcano.

ANSWER: Mount <u>Toba</u> [or <u>Toba</u> event; or <u>Toba</u> catastrophe theory]

<Wynne>

- 20. One member of this group, Andrei Kurbsky, defected to Lithuania in 1564, the same year that many of them staged a revolt against the tsar. For 10 points each:
- [10] Identify these highest members of the Russian aristocracy. They served in a namesake duma.

ANSWER: **Boyars** [or **Boyarin** or **Boyare** or **Bolyar**]

[10] This first Russian tsar fought the Boyars. He gained his epithet through actions like beating his own son to death.

ANSWER: Ivan the Terrible [or Ivan IV or Ivan Vasilyevich or Ivan Grozny]

[10] Ivan massacred many of the residents of this city on the Volkhov River in 1570. Before becoming prince of Kiev and grand prince of Vladimir, Alexander Nevsky ruled as the prince of this city.

ANSWER: Velikiy Novgorod



21. This state's ambassador Bolad convinced the foreign ruler Gaykhatu to adopt its *Chao* paper currency.

The residents of Tabriz did not care for it, and promptly strangled Gaykhatu. For 10 points each:

[10] Identify this ruling dynasty that divided society into four classes like *hanren* and *nanren*. Guo Shoujing and Amir al-Din helped build its capital at Dadu.

ANSWER: Yuan Dynasty [prompt on "Empire of the Great Khan"]

[10] The Yuan Dynasty was founded by this Mongol leader, a grandson of Genghis Khan who was visited by Marco Polo.

ANSWER: Kublai Khan [or Yuan Shizu or Yuan Shih-tsu or Xubilai xaan or Qubilai Qayan]

[10] Members of the White Lotus Society staged this rebellion that toppled the Yuan Dynasty. Its leader,

Zhu Yuanzhang, became the Ming Emperor Hongwu.

ANSWER: **Red Turban** Rebellion [or **Red Scarves** Rebellion]

<Bentley>

22. Identify these seemingly obvious statements from mathematical analysis, for 10 points each.

[10] This statement simply asserts that every number is equal to itself.

ANSWER: reflexive property

[10] One can always choose an integer greater than a given real number, according to a principle named for this Greek mathematician. He also used the method of exhaustion to approximate pi.

**ANSWER: Archimedes** 

[10] This statement asserts that under any order relation and two numbers *x* and *y*, *x* is either less than, equal to, or greater than *y*.

ANSWER: law of trichotomy

<Eltinge>

23. A poem addressed to this man describes how "Gallic powers" found "Columbia's fury", offering the same fate to those who would dare "disgrace the land of freedom's heaven-defended race". For 10 points each:

[10] Identify this military leader and politician who was described as a "great chief, with virtue on thy side" in that 1775 poem.

ANSWER: George <u>Washington</u> [or General <u>Washington</u>; accept "To <u>His Excellency, General Washington</u>"]

[10] "To His Excellency, General Washington" was written by this early African-American poet, whose other works include an elegy on the death of George Whitefield and the *Poems on Various Subjects*, *Religious and Moral*.

ANSWER: Phillis Wheatley

[10] The dismissal of her poems by Thomas Jefferson was among the titular "Trials" endured by Wheatley discussed in a 2003 book by this Harvard scholar, the author of *In Search of Our Roots* and *The Signifying Monkey*.

ANSWER: Henry Louis **Gates**, Jr.