1. Primitive members of this phylum contain pairs of gills called ctenidia, and the organs of smell in this phylum are known as osphradia. Most members of this phylum contain an odontophore, which supports a ridged tonguelike structure known as the (*) radula, or the mantle, which is modified into an organ of propulsion in order Cephalopoda but secretes an external shell in most other orders. For 10 points, name this phylum that contains octopi, clams, and snails.
ANSWER: **Mollusca** [accept **Mollusk**s]

2. This man adapted John Fletcher's *Beggars' Bush* into a play about Leonidas and Palmyra, *Marriage à la mode*. One of his poems chronicles the Battles of Lowestoft and St. James Day, in addition to the disastrous London Fire and is called "Annus Mirabilis." Nahum Tate likely wrote the second part of his satire of the (*) Duke of Monmouth Rebellion, and this author lampooned Thomas Shadwell as the heir to the kingdom of dullness in another poem. For 10 points, name this British poet of "MacFlecknoe" and "Absalom and Achitophel."
ANSWER: John **Dryden**

3. In this play, the deeply in debt schoolteacher Simon Medviedenko is married to Masha, who is in love with the protagonist. Masha is the daughter of Paulina and Ilya Shamraef, who is the manager of the estate where this play is set. The estate central to this work belongs to (*) Sorin, whose sister is the aging actress Arkadina. Arkadina belittles her son, who desperately wants to join the intelligentsia that she and Trigorin belong to. For 10 points, name this Chekhov play in which Treplev shoots himself after shooting the title bird.
ANSWER: The **Seagull** [or **Chayka**]

4. One variation of this process is known as the Leloir pathway. It ends with the transfer of a phosphate group from PEP. Earlier in this process, dihydroxyacetone phosphate is converted to glyceraldehyde-3-phosphate. This pathway, which usually begins with the (*) phosphorylation of the starting material by the enzyme hexokinase, occurs in the cytosol. It is also known as the Embden-Meyerhof pathway, and it yields a net total of two ATP molecules. For 10 points, name this series of anaerobic reactions in which glucose is split into two molecules of pyruvate.
ANSWER: **glycolysis** [accept **Embden-Meyerhof** pathway early]

5. One member of this house, a constable, was made governor of Milan by Holy Roman Emperor Charles V. In compensation for annexing Parma, the French created Etruria for this house to rule. Antoine, Duke of Vendome was the head of this house, and that man's son became king of (*) Navarre before fighting in the War of the Three Henrys. This house produced the lover of Madame du Barry, as well a monarch dubbed the "Sun King." For 10 points, name this house of Henry IV and Louis XIV.
ANSWER: house of **Bourbon**

6. One of his symphonies ends with a "saltarello" movement, and his *Fantasia in F-sharp minor* for piano was originally entitled *Sonate Écossaise*. His fifth symphony quotes "A Mighty Fortress is our God" and is nicknamed *Reformation*. This man wrote a symphony inspired by a visit to Holyrood Castle, as well as the (*) *Hebrides Overture*. His wedding march was added to music he wrote to a Shakespeare play. For 10 points, name this German composer of incidental music for *A Midsummer Night's Dream*, as well as the *Scottish* and *Italian* symphonies
ANSWER: Felix **Mendelssohn**-Bartholdy [prompt on **Bartholdy**]

7. In one of this author's works, an approaching hurricane causes Paul Ackermann and the rest of the title town to become hedonistic. In another of his works, Judge Azdak rules that Grusche, and not Natella, is the mother of a child. This author of *The Rise and Fall of the City of Mahoganny* and *The* (*) *Caucasian Chalk Circle* wrote of Anna Fierling and her offspring Kattrin, Eilif, and Swiss Cheese and a musical based on a John Gay work with a score by Kurt Weill. For 10 points, name this German playwright of *Mother Courage and her Children* and *The Threepenny Opera*.
ANSWER: Bertolt **Brecht**

8. The strength of this force increases for systems with a high Keulegan-Carpenter number, and d'Alembert's paradox deals with when it is zero. Its magnitude acting on spheres is given as 6 pi v R mu by Stokes' law. In general it is one-half rho A v squared times its namesake (*) coefficient, which is generally a function of the Reynolds number and symbolized C sub D. When setting the sum of this and the buoyant force equal to weight, a particle's terminal velocity can be found. For 10 points, name this force that opposes an object's movement through a fluid.
ANSWER: **drag** force

9. This island's Minami Alps and Akaishi Mountain Range are found within the Chudu region, which is bounded to the north by the Kiso and Hido Mountain Ranges. The island's Shiga *ken* prefecture is the location of Lake Biwa. This island is bounded to the north by the (*) Tsugaru Strait. The Misaka-Tenshu Range contains Lake Yamanaka, Lake Sai, and three other lakes that surround Mount Fuji, which is located on this island. For 10 points, Osaka and Hiroshima as well as the capital, Tokyo, are located on which island, the largest of Japan's four main islands?
ANSWER: **Honshu**

10. Sir William Phips led an unsuccessful attempt to capture this place during King William's War, and Aaron Burr distinguished himself in battle here by trying to carry the corpse of General Richard Montgomery from the field. Guy (*) Carleton led the successful British defense of this city during the American Revolution, and the Plains of Abraham near this city were the site of a battle of the French and Indian War. For 10 points, General Wolfe and General Montcalm died in the battle over what city in French Canada in 1759?
ANSWER: **Quebec**

11. One painting of this event has cattails in its lower left, and the woman on the right is wearing a full dress with a repeated blue flower design and extends a red cloth with different plants and flower designs on it. Alexandre Cabanel's version of the scene has five cupids flying around blowing (*) conchs, and the most famous one has pink flowers hovering around the left. A horae greets the title figure of this painting, who is being blown to Cyprus by a zephyr. For 10 points, name this painting by Sandro Botticelli of the goddess of love standing on a half-shell.
ANSWER: The **Birth of Venus**

12. G. Q. Heather-Greener studied them in migraine headache sufferers. One of them involved the formula for trimethylamin and a dose of propyl and was known as Irma's Injection. A biological view of them states they reflect cortical explanations of (*) random neural signals, while a psychodynamic view distinguishes their "manifest content" and "latent content" and was studied by an Austrian who wrote "The Interpretation of" them. For 10 points, name these nighttime events that occur during REM sleep.
ANSWER: **dream**s

13. In this work, the misogynistic telegraph operator Wash Williams is scarred by his unfaithful wife, and the four-part story "Godliness" depicts the fanatical Jesse Bentley and his descendents. Other characters in this work include Dr. Reefy, who balls up pieces of paper, and (*) Wing Biddlebaum, whose past as a suspected child molester haunts him in the story "Hands." For 10 points, name this book in which George Willard connects stories about residents of the title town, a work by Sherwood Anderson.
ANSWER: ***Winesburg, Ohio***

14. After leading a siege of Chippenham, this ruler negotiated the conversion of King Guthrum in the Treaty of Wedmore. That treaty established an eastern boundary on his territory at Watling Street, separating this man's kingdom from the Danelaw, the (*) Viking territory that once fought his kingdom of Wessex. Bishop Asser chronicled such achievements in the reign of this man, who also translated *The Consolation of Philosophy* into Old English. For 10 points, name this ninth-century Anglo-Saxon king who earned his epithet "the Great" by unifying England.
ANSWER: **Alfred** the Great

15. Penn and Teller appear in this group's video for the song "It's Tricky," and Pete Rock and C.L. Smooth appear on their "Down With The King." One of their songs references ordering a Big Mac in a KFC, and another is about objects which "walk (*) through concert doors / and roam all over coliseum floors." In addition to "You Be Illin'" and "My Adidas," they collaborated with Aerosmith on a rap version of "Walk This Way." For 10 points, name this rap trio consisting of Jam-Master Jay, Darryl McDaniels, and DJ Run.
ANSWER: **Run-D.M.C.**

16. When sandwiched between lithium and a hydride group, this element is part of a powerful reducing agent. Ziegler-Natta catalysts typically consist of a mixture of titanium compounds and compounds of this element. It was first isolated by Hans Christian (*) Oersted, and commercial production of this element uses the Bayer process followed by the Hall-Heroult process to refine this element's principle ore, bauxite. For 10 points, name this most abundant metal in the earth's crust with atomic number 13 and symbol Al.
ANSWER: **aluminum** [or **aluminium**; or **Al** before mention]

17. Some legends state that this figure inhabited the White Island after his death. This man could not stop himself from killing the Amazon Penthesilea, and he fell in love with and got to keep a concubine named Briseis. His son Neoptolemus received his armor after his death, and he earlier commanded the (*) Myrmidon tribe, which also saw command by his companion Patroclus. He feuded with Agamemnon, slew Hector, and was dipped into the waters of the Styx by Thetis. For 10 points, name this near-immortal warrior with a namesake heel.
ANSWER: **Achilles** [or **Akhilleus**; or **Achilleus**]

18. This architect developed purism with Amédée Ozenfant, and his works include the brick-walled Museum at Ahmedabad and a multimedia tent with flowing curves built for the World Exposition in Brussels, the Philips Pavilion. He created a chapel with a pointed dark concrete roof at (*) Ronchamp, as well as a house situated above a glass ground floor and supported by white pilotis, one of the "Five Points" he extolled in his *Towards a New Architecture*. For 10 points, name this Swiss-French designer of the Notre Dame du Haut and the Villa Savoye.
ANSWER: Le **Corbusier** [or Charles-Edouard **Jeanneret**-Gris]

19. One perpetrator of this incident screamed "By God, his Mary has helped!" after mocking the prayers of one of its victims. The people responsible for this event supported the "Winter King" Frederick V, who was defeated the next year at White Mountain. It occurred because the Letter of (*) Majesty was violated by the closing of Calvinist chapels at Broumov. Its victims, emissaries of the Hapsburg emperor, were saved by a pile of manure. For 10 points, name this Thirty Years' War-sparking event in which two men were thrown from a Central European window.
ANSWER: 1618 **Defenestration of Prague** [or Second **Defenestration of Prague**]

20. One poem in this book is depicted in a two-column, alternating style in the Sefer Torah and is the poem "The Song of the Sea." Chapter thirty of this book tells of the construction of an altar of incense as part of the story of the construction of the tabernacle. In chapter twenty, (*) Moses receives the Ten Commandments, and chapters seven through ten tell of God unleashing a series of plagues when a pharaoh refuses to let his people go free. Detailing the story of Moses leading the Israelites from Egypt, for 10 points, name this second book of the Old Testament.
ANSWER: **Exodus**

21. In one of this author's plays, a master of philosophy tells Jourdain that he speaks in prose instead of verse. His version of *Don Juan* depicts him as a hypocritical atheist who is swallowed up by an abyss from Heaven. This author's title characters include a man who attempts to seduce (*) Elmire while living in the home of Orgon, and Alceste, who despises the conventions of French society. For 10 points, name this French playwright of *The Bourgeois Gentleman*, *Tartuffe*, and *The Misanthrope*.
ANSWER: **Molière** [or Jean-Baptiste **Poquelin**]

22. This ruler's ministers included Wilhelm Haugwitz, who ended the tax exemptions of the nobility, and the public health advisor Gerhard van Swieten, who introduced textbooks to universities. She pursued the "reversal of alliances," abandoning England's help for France, and she lost (*) Silesia after decades of strife with Frederick the Great of Prussia. Her throne was guaranteed by Charles VI's Pragmatic Sanction, but she had to rely on the War of the Austrian Succession to secure her rule. For 10 points, name this mother of Joseph II and longtime queen of Austria.
ANSWER: **Maria Theresa**

23. B over u is equal to the longitudinal diffusion of particles undergoing one type of this process in the hyperbolic Van Deemter equation. One version uses silica gel and chloroform and is an a modification of the variety invented by Mikhail Tsvet known as the (*) partition type, to which was later added a glass plate. In addition to the ion-exchange and high-performance liquid types employed today, other common varieties include the paper and thin-layer varieties. For 10 points, name this method for separating solutes into mobile and stationary phases.
ANSWER: **chromatography**

1. Its founder characterized it as a "philosophy for living on earth." For 10 points each:
[10] Name this philosophy, which is largely about following one's "rational self-interest" and is strongly libertarian, with an emphasis on pure laissez-faire capitalism.
ANSWER: **objectivism** [accept word forms]
[10] Objectivism was founded by this woman, who expounded it in works such as one asking "Who is John Galt?," as well as *Anthem*, *We the Living*, and *The Fountainhead*.
ANSWER: Ayn **Rand** [or Alisa Zinov'yevna **Rosenbaum**]
[10] Rand acknowledged a kinship with this philosopher, who posited the tabula rasa, helped draft the Fundamental Constitution of the Carolinas, and wrote *Two Treatises of Government*.
ANSWER: John **Locke**

2. This composer used the same overture in *La pietra del paragon* and *Tancredi*, the latter of which features the love song "Di tanti palpiti." For 10 points each:
[10] Name this Italian composer, who stopped writing operas after the public disapproved of his opera about a Swiss patriot, *William Tell*.
ANSWER: Gioacchino Antonio **Rossini**
[10] Rossini's biggest success was this opera buffa in which Count Almaviva disguises himself as Lindoro and enlists the help of the title character, Figaro, in wooing Rosina.
ANSWER: The *Barber of Seville* [accept *Il **Barbiere di Siviglia***]
[10] Rossini also composed an opera about a "thieving" type of this bird. Ninetta is blamed for this title bird's swiping of a silver spoon.
ANSWER: a **magpie** [or **gazza**; accept The ***Thieving Magpie***; or La ***gazza ladra***]

3. One deity of this type is half Tuatha Dé Danaan and is so good at the spear that he is named Lugh the Long-handed. For 10 points each:
[10] Name this kind of god, represented in various myth systems as Amaterasu, Surya, and Elagabalus. A famous example of one once disastrously let his son Phaethon ride his chariot.
ANSWER: **sun god**s [or **solar deities**; accept equivalents]
[10] This Aztec sun god's name means "the Hummingbird of the South," and he emerged fully armed from his mother Coatlicue's womb, killing Coyolxauhqui and his 400 siblings.
ANSWER: **Huitzilopochtli**
[10] This other sun god was attacked by Apep every night while on his solar barge and was merged with Amun and Atum. He fathered Shu and Tefnut and had a cult center at Heliopolis.
ANSWER: **Ra** [or **Ré**]

4. According to the second law of thermodynamics, this quantity must increase for any isolated system in which a spontaneous irreversible process occurs. For 10 points each:
[10] Name this quantity that represents the thermal energy that is unavailable for useful work in a system and also measures the disorder or randomness of the system.
ANSWER: **entropy**
[10] The entropy is proportional to the natural logarithm of the microstates of a system by this constant of proportionality.
ANSWER: **Boltzmann**'s constant
[10] Boltzmann's constant is equal to the ideal gas constant divided by this other number, which is equal to the number of atoms of carbon-12 in a gram of carbon-12.
ANSWER **Avogadro**'s number

5. It occurred the year after the similar Rose Revolution in Georgia and a year before the Tulip Revolution in Kyrgyzstan. For 10 points each:
[10] Name this colorful 2004 event in which protestors camping out in Kiev caused the election of Viktor Yanukovych to be overturned, leading to Viktor Yushchenko becoming president.
ANSWER: **Orange** Revolution
[10] The Orange Revolution occurred in this country, whose pro-Russian east largely supported Yanukovych.
ANSWER: **Ukraine**
[10] This former energy company president, known as "the gas princess," is the prime minister of Ukraine. After a falling-out with Yushchenko, she has advocated abolishing the presidency.
ANSWER: Yuliya Volodymyrivna **Tymoshenko**

6. Godfrey Ablewhite is murdered over possession of the titular gem. For 10 points each:
[10] Name this novel in which the title diamond is stolen from a Hindu shrine and then stolen from Lady Verinder's cabinet, a crime investigated by Sergeant Cuff.
ANSWER: The ***Moonstone***
[10] This British author of *Armadale* and *No Name* penned *The Moonstone*.
ANSWER: William Wilkie **Collins**
[10] Anne Catherick is the mysterious title female of this Collins novel in which Walter Hartright lusts after Laura Fairlie.
ANSWER: The ***Woman in White***

7. He signed the Treaty of Eternal Peace with Khosrow I to settle a war with Persia. For 10 points each:
[10] Name this sixth-century Byzantine emperor, who also married Theodora, survived the Nika Revolt, and patronized a namesake compilation of laws.
ANSWER: **Justinian** I [or Flavius **Justinian**us]
[10] This general defeated the Vandals on behalf of Justinian, though the emperor trusted the eunuch Narses more than this man.
ANSWER: **Belisarius**
[10] Belisarius' loyalty is praised in the *Secret History*, a book by this assistant to Belisarius, who condemned the excesses of Justinian and Theodora.
ANSWER: **Procopius**

8. One character encountered in this novel is the loquacious Denver D. Doll. For 10 points each:
[10] Name this novel in which Sal Paradise and Dean Moriarty travel from New York to Mexico.
ANSWER: ***On the Road***
[10] *On the Road* is a novel by this author of *The Town and the City*, *Dharma Bums*, and *Big Sur*.
ANSWER: Jack **Kerouac**
[10] *On the Road* fictionalizes this author as Bull Lee. This author wrote himself into his most famous novel as junkie Bill Lee, who travels to the Interzone in his *Naked Lunch*.
ANSWER: William Seward **Burroughs** II

9. Located in the left frontal lobe, this area of the brain is specialized for movements of the mouth and tongue, and damage to it results in difficulty producing speech. For 10 points each:
[10] Name this area of the brain that is located a few centimeters in front of Wernicke's area.
ANSWER: **Broca**'s area
[10] Often caused by a lesion to a part of the brain, such as Broca's area or Wernicke's area, this seven-letter term refers to any language disorder.
ANSWER: **aphasia**
[10] In 1848, an explosion sent a metal bar through the skull of this construction worker. He survived despite severe frontal lobe damage, which led to a dramatic change in his personality.
ANSWER: Phineas **Gage**

10. He painted a nude backside of a man in a section of his *Beethoven Frieze*, and he painted a house in *Schlob Kammer on the Attersee*. For 10 points each:
[10] Name this Austrian painter of a portrait of Adele Bloch-Bauer.
ANSWER: Gustav **Klimt**
[10] Gustav Klimt painted this woman twice, the first time with a gold brooch and one breast exposed. She was also painted by Artemisia Gentileschi holding the head of Holofernes.
ANSWER: **Judith**
[10] Klimt's best-known work may be an example of this type of amorous embrace, also depicted in sculptures by Brancusi and Rodin.
ANSWER: a **kiss** [accept *The **Kiss***]

11. This city is known as Elephant's Trunk in Arabic, and its sister town of Omdurman can be accessed through a bridge connection. For 10 points each:
[10] Name this African capital city that was rebuilt by Governor-General Lord Kitchener, home to a namesake university previously known as the Gordon Memorial College.
ANSWER: **Khartoum** [or **Al-Khurtum**]
[10] Khartoum sits at the confluence of the Blue and White branches of this African river, which was dammed by the Aswan High Dam.
ANSWER: **Nile** [or **Bahr an-Nil**]
[10] This western region of Sudan is bounded by the Gazelle River and the Libyan Desert and is the site of war between the Janjaweed and rebel groups such as the Sudan Liberation Army.
ANSWER: Western **Darfur**

12. The capital of this state from 1804 to 1868 was Milledgeville. For 10 points each:
[10] Name this state that was the home of the infamous Andersonville prison during the Civil War.
ANSWER: **Georgia**
[10] This founder of the British colony of Georgia failed to capture St. Augustine from the Spanish but successfully repelled a Spanish attack on Fort Frederica in 1742.
ANSWER: James **Oglethorpe**
[10] The 1810 case of *Fletcher v. Peck* resolved the issue of this land fraud named for this river, in which Georgia legislators were bribed to sell Georgia's western claims to four land companies.
ANSWER: **Yazoo** land fraud [accept reasonable equivalents mentioning **Yazoo**]

13. When two of these devices are separated by a thin insulating layer, a Josephson junction is formed and a current is generated in the absence of a voltage. For 10 points:
[10] Name these devices that, when cooled to very low temperatures, do not display electrical resistance.
ANSWER: **superconductor**
[10] A superconducting quantum interference device, or SQUID, is composed of two parallel Josephson junctions and can be used to measure the change in these types of fields.
ANSWER: **magnetic** field
[10] According to this effect, as a material becomes a superconductor when it excludes magnetic fields from its interior in proportion to the London penetration depth.
ANSWER: **Meissner** effect

14. This play centers on the wife of Torvald. For 10 points each:
[10] Name this play, whose protagonist Nora Helmer leaves her husband after falling victim to Krogstad's blackmail.
ANSWER: A *Doll's House* [or *Et **dukkehjem***; accept *A/The **Doll House***]
[10] This Norwegian playwright of *Rosmersholm* and *Pillars of Society* penned *A Doll's House*.
ANSWER: Henrik **Ibsen**
[10] This Ibsen play centers on Halvard Solness, the title architect who is afraid of heights and plummets to his death trying to climb up a tower in his home.
ANSWER: The *Master Builder* [or *Bygmester Solness*]

15. For 10 points each, name these scales.
[10] Sometimes called twelve-tone, this scale consists of all twelve notes in the octave, each separated by a half step.
ANSWER: **chromatic** scale
[10] This scale consists of two whole-step intervals, then a half-step interval, then three whole-step intervals, then a half-step interval. It uses all white keys on the piano if the tonic is at C.
ANSWER: **major** scale [accept **Ionian** scale or mode]
[10] Transposition from a major scale to the relative minor requires going from Ionian mode to this mode. It uses all white keys on the piano if the tonic is at A.
ANSWER: **Aeolian**

16. He was appointed foreign minister of the Norwegian government-in-exile after Norway fell to Germany in 1940. For 10 points each:
[10] Name this man, who was forced to resign his position as the first secretary general of the United Nations due to Soviet opposition.
ANSWER: Trygve **Lie**
[10] Trygve Lie was succeeded by this Swede, who was killed in a plane crash while trying to mediate civil war in the Democratic Republic of the Congo in 1960.
ANSWER: Dag **Hammarskjold**
[10] After serving as secretary general of the U.N. from 1972 to 1981, this former Nazi soldier served as president of Austria from 1986 to 1992.
ANSWER: Kurt **Waldheim**

17. This revolution prompted Tsar Nicholas II to try to transform Russia into a constitutional monarchy. For 10 points each:
[10] Name this Russian revolution, named for the year in which it occurred, that was prompted by the defeat in the Russo-Japanese War.
ANSWER: Revolution of **1905**
[10] In response to the Revolution of 1905, Nicholas II issued this document on the advice of Sergey Witte. It promised a popularly elected Duma and the guarantee of civil liberties.
ANSWER: **October Manifesto** [or **Oktyabrsky Manifest**]
[10] One of the centers of the Revolution of 1905 was this Ukrainian port city, which was the site of the Potemkin Mutiny.
ANSWER: **Odessa**

18. The Columbia River gives some of the best evidence for the existence of one of them, and another one was known as Rodinia and existed about a billion years ago. For 10 points each:
[10] Name these giant landmasses, the best-known of which is Pangaea.
ANSWER: **supercontinent**
[10] Pangaea broke up into two smaller supercontinents, Laurasia in the north and this one in the south, consisting of Australia, Antarctica, South America, Africa, and India.
ANSWER: **Gondwana**land
[10] This Austrian scientist was the first to propose the existence of a supercontinent, which he named "Gondwanaland."
ANSWER: Edward **Suess**

19. For 10 points each, name these William Faulkner novels.
[10] In this biblically titled work, Thomas Sutpen is killed by Wash Jones after building a Mississippi plantation.
ANSWER: ***Absalom, Absalom!***
[10] In this novel, Quentin Compson commits suicide after his family sells a pasture to send him to Harvard.
ANSWER: The ***Sound and the Fury***
[10] This work follows the Bundren family's attempt to bury Addie Bundren's body in Jefferson, as told from several points of view.
ANSWER: ***As I Lay Dying***

20. Screens for cystic fibrosis in newborns include a test for the presence of a precursor to a molecule of this class, trypsin, in blood. For 10 points each:
[10] Name this class of biological catalysts that also includes pepsin and amylase.
ANSWER: **enzyme**s
[10] This is the site at which an enzyme binds to a substrate and thus where enzyme-catalyzed reactions take place.
ANSWER: **active** site
[10] This type of enzymatic inhibition occurs when a molecule with similar chemical properties to the substrate binds to the active site of the enzyme instead of the substrate.
ANSWER: **competitive** inhibition

21. One of the title characters gets stronger toward midday, and the other turns out to be Bertilak. For 10 points each:
[10] Name this medieval poem that pits an Arthurian knight against a colorful foe.
ANSWER: *Sir **Gawain and the Green Knight***
[10] *Sir Gawain and the Green Knight* was written by this mysterious poet, who may have been John Massey. He is usually named after another work in Middle English.
ANSWER: **Pearl** Poet [prompt on **Gawain** poet]
[10] Another source for Arthurian legend was this English account written partly in jail by Thomas Mallory.
ANSWER: *Le **Morte d'Arthur*** [or *The **Death of Arthur***]

22. This incident escalated when Peter Kakhovsky shot Count Miloradovich, who had been sent to attempt to peacefully disperse the demonstrators. For 10 points each:
[10] Name this uprising, largely of the Russian military, which took place after the death of Alexander I and whose members supported making Constantine tsar.
ANSWER: **Decembrist**s uprising or revolt
[10] The Decembrists were opposed to the rule of this younger brother of Constantine. During his reign he won some victories over the Ottomans, securing land on the Black Sea.
ANSWER: **Nicholas I**
[10] Despite being elected dictator by the Decembrists, this man failed to show up to the Senate Square demonstration. He's loosely related to the Prague School author of *Principles of Phonology*.
ANSWER: Sergei Petrovich **Troubetzkoy**

23. The Davisson-Germer experiment verified that this law holds for electrons. For 10 points each:
[10] Name this law usually applied to X-rays that can be stated "n lambda equals 2d sine theta" and deals with diffraction off certain surfaces.
ANSWER: **Bragg**'s law
[10] Bragg's law deals with these solid materials, whose bond strength is measured by lattice energy and which come in varieties like face-centered cubic.
ANSWER: **crystal**s
[10] Some crystals, such as quartz, exhibit this property by which applying a mechanical force induces a voltage across the crystal.
ANSWER: **piezoelectricity**