

PACE NSC 2011

Edited by Mike Bentley, Matt Bollinger, Rob Carson, Kyle Haddad-Fonda, Hannah Kirsch, Trygve Meade, Bernadette Spencer, Guy Tabachnick, and Andy Watkins

Packet 9

Tossups

1. A former center of this body of water's fishing industry was Moynaq, a city whose population has plummeted since the 1980s. This body of water was split by the construction of the Dike Kokaral across the Berg Strait in 2006. The now-uninhabited town of Kantubek on Rebirth Island in this body of water was once the world's largest dumping ground for anthrax. One river flowing into it is tapped by the Kara Kum Canal, which was built to provide irrigation for cotton. That tributary, the (*) Amu Darya, as well as the more northerly Syr Darya, have been so taxed that this lake's namesake city now lies 12 kilometers away from it, while in 2008 its eastern portion ceased to exist. For 10 points, name this shrinking lake in Kazakhstan and Uzbekistan.

ANSWER: Aral Sea

<Haddad-Fonda>

2. One film made in this country features shots followed by scenes showing those shots being edited in the cutting room, and a spliced scene showing the same tram from opposite sides of a street. That "film without set, actors, etc." is *Man with a Movie Camera*. One filmmaker from this country showed a historical event that begins with a man shouting "Brothers! Who are you shooting at?", which results in a (*) mutiny on a vessel due to rotten meat. That work shows troops shooting at helpless civilians, including a woman with a baby carriage, while marching down steps in Odessa. For 10 points, name this twentieth-century superpower, the nation where movies like *Alexander Nevsky* and *The Battleship Potemkin* were made by Sergei Eisenstein.

ANSWER: Union of Soviet Socialist Republics [or Soyuz Sovetskikh Sotsialisticheskikh Respublik; accept Soviet Union; accept CCCP if anyone's being puckish; prompt on Russia I guess]

<Tabachnick>

3. Morokuma and Pedersen performed the first calculations on dimers of this substance, and Berkeley professor Richard Saykally's research entirely concerns this substance. The sulfur-iodine cycle is employed to decompose this substance into its constituent elements. Some reactions carried out in emulsions in this substance exhibit a rate acceleration studied by (*) Sharpless. Models of the highly-ordered layers this substance forms around phospholipid tails explain the entropic contribution to their orientation inward in the cell membrane, and its triple point defines the Kelvin scale. For 10 points, name this common solvent with formula H₂O.

ANSWER: water [accept H₂O before mentioned]

<Watkins>

4. One relationship in this play is described as so clean that “death was the only icebox where you could keep it.” Another character in this play recounts how a drunk spat tobacco juice at Susan McPheeters, the Cotton Carnival Queen. The male lead in this play injured his ankle reliving his glory days jumping hurdles on a track. In this play, the (*) Ochsner Clinic falsely diagnoses one character with a “spastic colon” instead of terminal cancer. At the end of this play, the title character’s supposed pregnancy thwarts Mae and Gooper’s ambitions to inherit Big Daddy’s estate, but Skipper’s death still haunts Brick. For 10 points, name this Tennessee Williams play in which Maggie Pollitt is the title feline.

ANSWER: Cat on a Hot Tin Roof

<Guth>

5. This work’s introduction suggests that an angel would be “ignorant of all the basic facts” of a case in which any person would be “judge and jury” to the main issue.. This work describes the contrast between the title group’s immanence and a desired state of transcendence. After sections called “Biology,” “Psychology,” and (*) “History,” this text argues that its title group is a constructed Other. For 10 points, name this feminist existentialist book that states “One is not born, but rather becomes, a woman,” written by Simone de Beauvoir.

ANSWER: The Second Sex [or La deuxieme sexe]

<Jackson>

6. The theme for the finale of one of these works is shared by its composer’s *Sehnsucht nach dem Frühling*; none of that piece’s movements are in a minor key. The composer of these works wrote that the orchestration the fourteenth one in E flat major could be reduced to a string quartet, eliminating the woodwinds. Another of these works contains a stately minuet in the middle of its third movement rondo and is nicknamed “Jeunehomme.” The twentieth, in D minor, is one of only two in a minor key, and one of them in D major is nicknamed (*) “Coronation.” The twenty-third of these shares some material with its composer’s opera *Don Giovanni*. For 10 points, name these 27 works for a solo instrument and orchestra by the composer of *The Magic Flute*.

ANSWER: piano concertos of Wolfgang Amadeus Mozart

<Kirsch>

7. Prior to this battle, the losing commander supposedly held a council at Phaleron where a ruler of Caria was the only not to advise him to attack. The losing side in this battle had to divide its forces around Psyttaleia. The servant Sicinnus conveyed a duplicitous message to the losing commander here, which forced the hand of Eurybiades of Sparta. Like in the previous battle of Euboea, some forces in this battle were commanded by (*) Artemesia, the queen of Halicarnassus. Although the losing monarch retreated after this battle, he left behind his deputy Mardonius who would soon be defeated at Plataea. The victors were helped by a large contingent of triremes provided by the Athenians. For 10 points, name this naval victory for the Greeks under Themistocles against the forces of Xerxes.

ANSWER: Battle of Salamis

<Bentley>

8. **MreB is this protein's major prokaryotic homologue. This protein binds and inactivates DNase. CapZ, a calcium-independent and lipid-dependent protein, caps and stabilizes the barbed positive end of one of its forms. Bundles of this protein facilitate the formation of structures like (*) filopodia. Units of the globular type of this protein assemble to form micro- and thin filaments, which, along with thick filaments, form myofibrils and are absent in the H zone of the sarcomere. For 10 points, name this protein that slides along myosin during muscle contraction.**

ANSWER: actin

<Kirsch>

9. **In one part of this novel, salt is sprinkled on a two-pound, ripped-out human heart to preserve it until its delivery to the heartless man's widow. Just prior to that, a dying marriage proposal from Basilio is ruled valid after he pops back up, having faked his death. The protagonist throws rocks to end the inaccurate puppet show of the monkey-owner Master Pedro, and a sadistic duke and duchess in it are inspired by a manuscript translated by (*) Cide Hamete Benengeli. The bachelor Sansón Carrasco disguises himself as the Knight of the White Moon in, for 10 points, what novel in which the title nobleman rides Rocinante, idealizes Dulcinea, and travels with Sancho Panza by Miguel de Cervantes?**

ANSWER: *The Ingenious Gentleman Don Quixote de la Mancha* [or *El ingenioso hidalgo Don Quijote de la Mancha*]

<Jackson>

10. **According to a rabbinical source named for Zebediah, this man used the phrase "bring the blood" in Leviticus to argue that laymen could sacrifice animals. He delivered speeches at locations such as Mizpah and Gilgal, and after hearing the bleating of sheep, this man sliced King Agag into pieces. This son of Elkanah was trained until the age of 13 by a priest from Shiloh named Eli, and his spirit was briefly resurrected after death by the (*) Witch of Endor. He was born after intense nighttime prayers by Hannah, his previously barren mother. For 10 points, name this Judge and prophet who anointed Saul and King David, whose two namesake Biblical books precede First Kings.**

ANSWER: Samuel [or Shmuel]

<Jackson>

11. **An important source for primary documents on this organization comes from Wojtech Mastny's book *A Cardboard Castle?*. This organization carried out its largest operation in Zapad-81, and its members served on the Political Consultative Committee. Following this body's dissolution, some of its members joined the CTSO. A supplement to the Council for Mutual Economic Assistance, people like Pal Maleter and (*) Imre Nagy led a movement to deaffiliate with this organization. Observers in this organization at the time of its creation included China and North Korea. The aforementioned 1956 revolution saw the Hungarian Working People's Party attempt to leave this alliance. For 10 points, name this Eastern European military alliance, the Soviet Union's answer to NATO.**

ANSWER: Warsaw Pact [or Warsaw Treaty of Friendship, Cooperation and Mutual Assistance or WAPA or Warpac or WP]

<Bentley>

12. **One objection to a formulation of this statement was resolved in part by Evans and Searles's introduction of the fluctuation theorem; that objection invoked time-reversal symmetry and is Loschmidt's paradox. That formulation is Boltzmann's H-theorem, while continuum mechanics uses an inequality named for its most famous formulator and (*)** Duhem. A thought experiment concerning this statement involving a creature that would sort particles based on temperature, Maxwell's Demon. Rudolf Clausius described this law by saying that no process can solely transfer heat from a lower to higher temperature body. For 10 points, name this law holding that the entropy of a closed system always increases.

ANSWER: second law of thermodynamics

<Watkins>

13. **Robert Bridges claimed this man's magnum opus was actually written in syllabic verse in an 1899 work on "[this man's] Prosody." The title figure of one of his poems cannot resurrect "him that left half told / the tale of Cambuscan bold." That poem calls Hermes "thrice great" and talks of the "unseen Genius of the Wood" after opening "hence vain deluding joyes." Huxley's (*) *Eyeless in Gaza* takes its title from a work by this author of the poem "Il Penseroso." This author of *Samson Agonistes* wrote of a summit with Mammon and Beelzebub in Pandemonium in his most famous work. For 10 points, name this poet who wrote "of man's first disobedience" in *Paradise Lost*.**

ANSWER: John Milton

<Ray>

14. **This man wrote a monograph in which he described the German mentality which led to World War I in his *Germany Above All*. One of this man's works claims that sociology must be brought into line as much as possible with the natural sciences by avoiding bias. He also wrote about differing forms of solidarity, including one that maintains order and is termed (*) "organic," in his *The Division of Labor in Society*. For 10 points, name this man who termed a disaffection with society as a whole as "anomie" and wrote about several forms of *Suicide* in a namesake essay.**

ANSWER: Emile Durkheim

<Meade>

15. **One ruler of this empire, Furrukhsiyar, ruled with the help of the Syed Brothers until they deposed him and blinded him with needles. Alamgir II was the ruler of this empire when its capital was sacked by the invading forces of Ahmad Shah Abdali. One ruler of this empire was tutored by Bairam Khan and was the focus of (*) Din-i Ilahi, a syncretic cult. That ruler's father lost his territories to Sher Shah and had to flee to Persia. This empire was established after the First Battle of Panipat, and one of its emperors was responsible for the construction of the Red Fort as well as a larger edifice at Agra. Babur founded and Aurangzeb, Shah Jahan, and Akbar the Great ruled, for 10 points, what Muslim dynasty of India?**

ANSWER: Mughal Empire

<Haddad-Fonda>

16. If every open cover of a topological space has a subcover with this property, it is known as a Lindelöf space. Separable spaces are those with dense subsets having this property. Powersets of sets with this property lack it according to (*) Cantor's theorem, while the set of discontinuities of monotone functions must have this property. The real numbers were shown to lack this property by the diagonal argument, also proposed by Cantor. Possessed by the integers and rationals, for 10 points, name this property of sets that can be put into bijection with the natural numbers and have cardinality denoted aleph-null.

ANSWER: countability [accept word forms; accept countably infinite; prompt on infinite before "lack it"; accept denumerability or word forms thereof; accept answers involving aleph-null or aleph-naught before the end]

<Greenthal>

17. This artist painted a man in a crown and full armor limply pointing his finger in his version of *The Burghers of Calais*. A figure in a green vest kneels while the title man has his hands splayed out in a historically inaccurate painting by this man set under an elm tree at (*) Shackamaxon. This artist depicted the title figure crowned in the center as sparks of light emanate from his clenched fists in one work. In another of his works, a Native American sits on the left as a man in blue tries to stanch the bleeding of the title figure in red. That work describes an incident from the Battle of the Plains of Abraham during the French and Indian War. For 10 points, name this artist of *The Treaty of Penn with the Indians*, *Death on a Pale Horse*, and *The Death of General Wolfe*.

ANSWER: Benjamin West

<Cohen>

18. One grandson of this deity is Kon the Young. This god was once wounded by a thrown severed head, leading "head of [this god]" to become a figurative phrase meaning "sword." He transformed himself and hid among seals to recover a magic necklace and is conflated with a deity who slept with three women to father the first thrall, peasant, and noble among mankind in the form of (*) Rig. This deity owns the sword Hofund. This gold-toothed rider of the horse Gulltoppr is the son of nine mothers and is able to hear grass grow. For 10 points, name this guardian of Bifrost who will blow the Gjallarhorn to announce Ragnarok.

ANSWER: Heimdallr [accept Rig until mention]

<Jackson>

19. One side in this event was headquartered at the Bost Building. Sheriff William McCleary attempted to mediate this event, which ended after Governor Robert Pattison called in the National Guard. It began after an agreement reached three years earlier with Charles M. Schwab expired. During it, the leader of one side survived a failed assassination attempt by Alexander (*) Berkman. It also saw a bloody clash after 300 agents traveled on a flotilla of barges down the Ohio River to confront workers. Plant manager Henry Clay Frick sent in Pinkerton detectives during this event, which involved union members from the Amalgamated Association. For 10 points, name this 1892 strike that took place at a Pittsburgh-area steel plant.

ANSWER: Homestead Strike

<Cohen>

20. **One of this author's novels contains a science fiction story set on the red planet Gazzali, in which Necip and his friend compete for the same woman. He also wrote a novel in which Galip tries to find his wife by living the life of his half-brother Celal, and a novel in which an Italian scholar is kidnapped and forced to work for Hoja. This author of *The Black Book* and *The (*) White Castle* also wrote a novel beginning with the murder of the miniaturist Elegant Effendi. In another of his novels, the poet Ka returns from exile to report on headscarf-related suicides. For 10 points, name this contemporary Turkish author of *My Name Is Red* and *Snow*.**

ANSWER: Orhan Pamuk

<Nediger>

21. **A former mayor of this city, Edwin Upton Curtis, successfully thwarted an attempt by public sector employees to join the AFL. In the early twentieth century, this city was controlled by four-time mayor James Michael Curley, and later in that century its underworld came under the domination of the Winter Hill Gang. Prominent families like the Welds were dubbed the Brahmins of this city in the nineteenth century. This city's North End was once wrecked by the (*) bursting of a large vat of molasses, and an aforementioned 1919 police strike in this city was put down by Calvin Coolidge. Residents of this city dressed up as Mohawk Indians and destroyed the cargo of ships like the Dartmouth in a noted 1773 event. For 10 points, name this city home to a famous Revolution-era Tea Party.**

ANSWER: Boston, Massachusetts

<Bentley>

22. **In one of his works, Nora walks off with a tramp after she is banished by her husband Dan Burke. This author of *The Shadow of the Glen* wrote about Cathleen attempts to hide the death of her brother but reveals it to (*) Maurya before Bartley's death is revealed, while in another work the title character puts on an air of bravery to impress Pegeen, but walks home after attempting to kill his father. For 10 points, identify this Irish playwright of *Riders to the Sea* who wrote about Christy Mahon in *Playboy of the Western World*.**

ANSWER: John Millington Synge

<Gautam Kandlikar>

23. **Very large amounts of this phenomenon can result from the acceleration of carriers to free electron-hole pairs, a process called avalanche breakdown even in insulators. This quantity is generally calculated by the product of particle number, (*) charge per particle, cross-section, and drift velocity. Power owing to this phenomenon is equal to this quantity squared times resistance. Circuits are generally classified as exhibiting this phenomenon either alternating or direct. For 10 points, name this flow of electric charge measured in amperes.**

ANSWER: current

<Watkins>

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Bonuses

1. Identify the following about the career of Scottish social reformer Robert Owen, for 10 points each.

[10] Robert Owen opened an alternative to these establishments, which accepted tokens given out by the truck system. The singer of “Sixteen Tons” tells St. Peter he can’t go to Heaven because he owes his soul to one of these establishments.

ANSWER: company store

[10] Owen made his fortune with this crop. The rise of this crop in Egypt and India helped keep prices from skyrocketing when imports of this crop from the United States plummeted in the 1860s due to a Union blockade of the South.

ANSWER: cotton

[10] Owen lobbied for a Poor Law, which was passed during the tenure of this longest-serving British Prime Minister. He guided Britain through the War of 1812 and shares a name with the city home to the White Star Line.

ANSWER: Robert Banks Jenkinson, 2nd Earl of Liverpool [accept either underlined answer] <Bentley>

2. This literary genre was divided into Old, Middle, and New forms, though the Middle form only survives in fragments of works by playwrights such as Athenaeus of Naucratis. For 10 points each:

[10] Name this genre that, in the fifth century BCE, included a parabasis, in which the chorus addresses the audience on whatever the author wants to talk about, and was more commonly performed at the Lenaea than the Dionysia.

ANSWER: Greek comedy

[10] This master of Greek Old Comedy wrote about pacifist women denying their husbands sex until the war ends in *Lysistrata* and about life in Cloudcuckooland in *The Birds*.

ANSWER: Aristophanes

[10] This man wrote about Sostratus’s attempt to woo the daughter of Cnemo in the only extant complete example of Greek New Comedy.

ANSWER: Menander

<Wynne>

3. Jesus stares directly at the viewer at the center of this artist's *The Wedding at Cana*. For 10 points each:

[10] Name this painter of *The Feast in the House of Levi*.

ANSWER: Paolo Veronese [or Paolo Cagliari]

[10] This contemporary of Veronese created several paintings of Saint Mark, including *The Miracle of the Slave*. In another work, filled with light and shadows, he showed a meal with Jesus standing by a table on the left side of the canvas.

ANSWER: Tintoretto [or Jacopo Robusti; or Jacopo Comin]

[10] The aforementioned Tintoretto work depicts this scene, at which Jesus announces that he would be betrayed. Leonardo da Vinci painted a fresco of it.

ANSWER: Last Supper

<Nediger>

4. One major section of this work concerns the satisfaction that its author felt after making \$8.71 selling beans he grew himself. For 10 points each:

[10] Name this work of philosophy which was written to allow its author to "live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach."

ANSWER: Walden: Or, Life in the Woods

[10] Name the author of *Walden* and *Civil Disobedience*.

ANSWER: Henry David Thoreau

[10] Mohandas Gandhi used Thoreau's *Civil Disobedience* as an inspiration for this philosophy, non-violent Indian nationalism.

ANSWER: satyagraha

<Meade>

5. For 10 points each, answer the following about a September 2010 discovery.

[10] In a September 2010 issue of *Nature*, Anne Peslier and colleagues confirmed an explanation for the presence of cratons, stable sections of this uppermost layer of the earth that may date back to around the time of the Earth's formation.

ANSWER: crust

[10] The idea behind the existence of cratons, confirmed by Peslier and colleagues, states that roots of cratons are unusually lacking in this substance, which permeates aquifers.

ANSWER: water [or H₂O]

[10] The group confirmed the explanation using samples found in South Africa's Koopvaal Craton. Those samples primarily consisted of this kind of volcanic rock, which forms "pipes" that are used to mine for diamonds.

ANSWER: kimberlite

<Wynne>

6. This man was promoted to be a member of the Sagunto Dragoons following the Battle of Albuera in Spain. For 10 points each:

[10] Identify this general, who replaced Manuel Belgrano following the Battle of Tucuman. He'd win the Battle of Maipu and liberate Santiago, Chile.

ANSWER: Jose de **San Martín**

[10] San Martín, along with General Manuel Belgrano, was a major figure in the independence movement in this modern-day country. After declaring independence, this country was named for the Rio de la Plata, which runs through its capital.

ANSWER: **Argentina**

[10] Argentina was once ruled by this caudillo, a political opponent of Juan Lavalle and the unitarios. He set up the Mazorca police force and was ousted following the Battle of Caseros.

ANSWER: Juan Manuel de **Rosas**

<Bentley>

7. Answer these questions about recent politics in the European Union, for 10 points each.

[10] In May 2010, the countries of the Eurozone agreed to loan 110 billion Euros to this country, which is led by George Papandreou, on the condition that it implemented austerity measures.

Three people died in the violent protests those cuts incited.

ANSWER: **Greece** [or **Hellas**; or **Hellenic Republic**]

[10] German chancellor Angela Merkel proposed in October 2010 to amend this 2007 treaty in the wake of the Greek financial crisis. This treaty significantly strengthened the European parliament and was initially rejected by a 2008 referendum in Ireland.

ANSWER: **Lisbon** Treaty [or **Reform** Treaty]

[10] This former Belgian prime minister became the first full-time president of the European Council in 2009 after the Lisbon Treaty took effect.

ANSWER: Herman **Van Rompuy**

<Haddad-Fonda>

8. Four soloists' voices from scattered loudspeakers open this man's bizarre *MASS*, which features segments in English such as "Sing God a Simple Song" and can be staged to include the smashing of the Eucharist. For 10 points each:

[10] Name this American conductor of the New York Philharmonic who wrote the music for the ballets *Dybbuk* and *Fancy Free*.

ANSWER: Leonard **Bernstein**

[10] Bernstein's Broadway output includes *Candide*, *On the Town*, and this 1957 musical in which Tony and Maria fall in love before a "rumble" between the Jets and the Puerto Rican Sharks, two rival street gangs.

ANSWER: **West Side Story**

[10] This lyricist for *West Side Story* later wrote highly dissonant scores for his own musicals, such as *Sunday in the Park with George*, *Into the Woods*, and *Company*.

ANSWER: Stephen **Sondheim**

<Jackson>

9. This study of mechanical waves may have begun with Pythagoras's observation that simple fractions of a string's length produced its overtones. For 10 points each:

[10] Name this study of sound.

ANSWER: acoustics

[10] These quasiparticles represent quantized vibrational modes.

ANSWER: phonons

[10] This scientist published extensively on acoustics, even applying his theory to the perception of music, but he is better known for his work in thermodynamics, such as his measure of fixed temperature and volume free energy symbolized A.

ANSWER: Hermann von Helmholtz [or Helmholtz free energy]

<Watkins>

10. He followed up his most famous work by addressing that subject's influence on the French Revolution, and he is credited with shaping the foreign policy of Theodore Roosevelt. For 10 points each:

[10] Identify this American author of *The Influence of Sea Power Upon History, 1660-1783*.

ANSWER: Alfred Thayer Mahan

[10] Mahan's histories earned him a role as a delegate to the peace conference in this city in 1899. The Peace Palace in this city now houses the International Court of Justice.

ANSWER: The Hague [or Den Haag; or 's-Gravenhag]

[10] During the Civil War, Mahan served on the *USS Congress*, which was sunk by this confederate vessel. The next day, at the Battle of Hampton Roads, it famously dueled the *Monitor*.

ANSWER: CSS Virginia [or USS Merrimack]

<Bentley>

11. Elena Blavatsky wrote a text about this deity "unveiled" for the super-wacky nineteenth-century theosophy movement. This goddess revived her husband after Thoth gave her the necessary magical incantations. For 10 points each:

[10] Name this goddess who worked to gather thirteen pieces of that torn-apart husband, Osiris.

ANSWER: Isis [or Aset]

[10] This sky goddess, the twin sister and husband of Geb, was the mother of Isis and Osiris.

ANSWER: Nut

[10] This pantheon headed by Atum, later called Atum-Ra, includes Atum's descendants Tefnut and Shu, while its third generation included Isis. It was worshipped at Heliopolis, where its namesake creation myth is preserved.

ANSWER: the Ennead of Heliopolis [prompt on Great Pesedjet]

<Jackson>

12. This composer's oratorio *Saint Ludmila* depicts the title figure's mediation of a dispute between some pagans and a hermit named Ivan. For 10 points each:

[10] Name this composer, whose first symphony is subtitled "The Bells of Zlonice." He wrote an opera about a water nymph who gets a witch to make her mortal.

ANSWER: Antonín **Dvořák**

[10] Dvořák incorporated African-American spirituals and Native American melodies into this symphony composed during his sojourn in the United States.

ANSWER: **Symphony No. 9**, "From the **New World**" [accept any]

[10] This is the instrument that plays the famous main theme from the Largo of the *New World Symphony*. This double-reed woodwind instrument also has a duet with the flute in the overture to *William Tell* and represents the title bird in *The Swan of Tuonela*.

ANSWER: **English horn** [or **cor anglais**; prompt on **horn**; do not accept "French horn"]
<Kirsch>

13. This concept arises when society emphasizes too much on the success goal and too little on the legitimate means for achieving the goal and adapting to society. For 10 points each:

[10] Name this modern reformulation of anomie.

ANSWER: **strain**

[10] Name the sociologist who described obliteration by incorporation, self-fulfilling prophecies, and strain theory and also wrote *Social Theory and Social Structure*.

ANSWER: Robert King **Merton**

[10] Robert Merton described a theory of scientific progress that drew heavily from Max Weber's work in this seminal work of sociology, which describes the effect of Calvinism on the propensity to save and invest money.

ANSWER: *The **Protestant Ethic** and the Spirit of Capitalism*
<Meade>

14. One of these during metaphase delays anaphase until the cell ensures that all chromosomes are secured to the spindle. For 10 points each:

[10] Give the term for the transitional periods in the cell cycle when the cell verifies that conditions are suitable for it to enter into the next phase.

ANSWER: cell cycle **checkpoints** [accept restriction **checkpoint**]

[10] The "restriction checkpoint" occurs at the transition between G1 and this phase. DNA replication and duplication of the centrosome, as well as DNA repair if necessary, occur during this phase, which is followed by G2.

ANSWER: **S** phase

[10] These proteins help regulate progression through the cell cycle by stimulating kinases dependent on them. The level of each of these proteins rises or falls at specific points in the cell cycle.

ANSWER: **cyclins**

<Kirsch>

15. In one novel by this author, the servants Annette and Ludovico facilitate the protagonist's escape. For 10 points each:

[10] Name this author of Gothic novels who described the perils faced by the orphaned Emily in *The Mysteries of Udolpho*.

ANSWER: Ann **Radcliffe**

[10] This author wrote what is considered to be the first Gothic novel. In that novel, the peasant Theodore is revealed to be the true heir to the title Castle of Otranto that has been usurped by Manfred's family.

ANSWER: Horace **Walpole**

[10] In Jane Austen's *Northanger Abbey*, Isabella Thorpe enthusiastically recommends the works of Ann Radcliffe to Catherine Moreland, who ultimately marries this man.

ANSWER: **Henry** Tilney

<Angelo>

16. One conflict in this region was prompted by the death of the last elector from the Wittelsbach family. For 10 points each:

[10] Identify this region, whose namesake succession war is sometimes referred to as the Potato War.

ANSWER: Free State of **Bavaria** [or **Bayern**; or **Bayre**]

[10] One of the belligerents in the War of the Bavarian Succession was this "enlightened despot," a Holy Roman Emperor who at one point served as the regent for his mother, Maria Theresa.

ANSWER: **Joseph II** Benedikt Anton Michael Adam

[10] Although Bavaria became a kingdom thanks to the Treaty of Pressburg signed with Napoleon, it turned against Napoleon before this 1813 battle. This decisive defeat for the emperor involved over 600,000 troops and is also called the Battle of the Nations.

ANSWER: Battle of **Leipzig**

<Bentley>

17. This work retells the anecdotes of Regulus's torture and Lucretia's suicide to question how virtuous those people were and claims in an anecdote that Alexander the Great's navy is no more justified in its conquests than a gang of pirates. For 10 points each:

[10] Name this massive religious work that likens the title entity to a nation of pilgrims and explained how an impotent pantheon couldn't prevent the 410 Sack of Rome.

ANSWER: *On the* **City of God** *Against the Pagans* [or **De civitate dei** *contra paganos*]

[10] This bishop of Hippo and author of *City of God* described his transition from Neoplatonism to Manichaeism to Christianity in his *Confessions*.

ANSWER: Saint **Augustine** of Hippo

[10] This earlier Christian thinker and apologetic was the first church father to write in Latin, and promulgated earlier Greek thinkers' views on the Trinity.

ANSWER: Quintus Septimius Florens **Tertullianus**

<Jackson>

18. This substance, discovered by Carl Wilhelm Scheele, has a diradical ground state. For 10 points each:

[10] Name this element, also the most common in the earth's crust, which exhibits two- and three-atom allotropes.

ANSWER: oxygen

[10] Ozone is not completely described by any Lewis structure depicting it, because two of its electrons are delocalized, requiring a hybrid structure to represent it somewhat accurately. That phenomenon is given this name.

ANSWER: resonance

[10] Oxygen's diradical ground state gives it this property; it is thus attracted to magnetic fields when they are present.

ANSWER: paramagnetism

<Watkins>

19. The title speaker of this poem has “raised the pyramids above” one of the title objects. For 10 points each:

[10] Name this poem whose speaker describes being lulled to sleep by one of the title objects, another of which turns “all golden in the sunset.”

ANSWER: “The Negro Speaks of Rivers”

[10] This Harlem Renaissance poet wrote “The Negro Speaks of Rivers,” along with *Montage of a Dream Deferred*.

ANSWER: Langston Hughes

[10] The speaker of this dramatic monologue by Hughes notes that “life for me ain't been no crystal stair” and advises the second title figure not to turn back.

ANSWER: “Mother to Son”

<Angelo>

20. In this play, it is revealed that Nora borrowed two hundred and fifty pounds from Nils Krogstad, who is trying to blackmail her into having her husband give him a position at the bank. For 10 points each:

[10] Name this Henrik Ibsen play about the collapse of the Helmers' marriage.

ANSWER: A Doll's House [or Et Dukkehjem]

[10] Several times during the play, Nora sneaks in a snack of these “forbidden” cookies, though she always hides them when her husband comes in.

ANSWER: macaroons

[10] The last line of the play, “The most wonderful thing of all-?”, is followed by this sound effect, indicating that Nora is not coming back.

ANSWER: a door shutting from below [accept reasonable equivalents implying that a door is being closed]

<Wynne>

21. Answer some questions about technological achievements of the Middle Ages, for 10 points each.

[10] The Middle Ages saw a veritable explosion in the construction of these labor-saving devices, which primarily used water power. Holland famously used the wind-powered ones to drain the Low Country, and they were often used for grinding grain.

ANSWER: mills

[10] This monastic order is known for transforming tracts of marginal land into productive manors by employing lay brothers and hired workers. They were founded by Bernard of Clairvaux.

ANSWER: the Cistercians [or Order of Cisterciansy; or Ordo Cisterciensis; prompt on White Monks]

[10] St. Benezet was allegedly divinely inspired to travel to Avignon and construct one of these objects, one of the first large-scale examples since Roman times. Seven of these once existed in the Russian city of Kaliningrad.

ANSWER: bridges

<Bentley>

22. In one story in this collection, Jesse Bentley attempts to sacrifice his grandson David's lamb, leading David to flee in fear. For 10 points each:

[10] Name this collection of connected stories, which ends as George Willard departs from the titular small town.

ANSWER: Winesburg, Ohio

[10] *Winesburg, Ohio* was written by this American author. He wrote about Bruce Dudley's love affair with Aline Grey in *Dark Laughter*.

ANSWER: Sherwood Anderson

[10] In this Robert Sherwood play, the title woodsman falls in love with Ann Rutledge and befriends Seth Gale before eventually becoming president.

ANSWER: Abe Lincoln in Illinois

<Bollinger>

23. This structure's Reissner's membrane separates its scala media from its scala vestibuli. For 10 points each:

[10] Name this snail-shaped structure of the inner ear.

ANSWER: cochlea

[10] The cochlea contains this sensory organ that responds to fluid vibrations conducted through the cochlea.

ANSWER: organ of Corti

[10] These are the sensory receptors within the organ of Corti. Bundles of stereocilia on their surfaces help them receive sound information.

ANSWER: hair cells

<Kirsch>