

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 1

Tossups

1. A \$5.25 billion plan to overhaul this structure, championed by Martín Torrijos and approved by a national referendum in 2006, caused Savannah and Charleston to seek federal money for dredging projects. That overhaul began with improvements to this structure's Gaillard Cut, which is crossed by Centennial Bridge and which joins up with the Chagres River. This structure makes use of the Miraflores and (*) Gatun Lakes, and at its northern terminus is the Colón Free Zone, a center for transshipment. The Bridge of the Americas near Balboa crosses, for 10 points, what isthmus-traversing waterway that saves ships the treacherous journey around Cape Horn by cutting through Central America?

ANSWER: Panama Canal [or Canal de Panamá]

<Haddad-Fonda>

2. One late ruler from this family had a morganatic marriage to Princess Zita of Bourbon-Parma. Different members of this family agreed to the secret Oñate Treaty of 1617, while a general serving this family, Charles Alexander, was defeated at Leuthen in the Seven Years War. A female member of this house switched allegiances to France in the 1756 "reversal of alliances" and was the wife of Francis Stephen. A monarch from this family known as "The Mad" died in (*) 1700, prompting a succession crisis. This house briefly held power over England when the Tudor queen Mary I married Phillip II of this house. Due to inbreeding, many members had a characteristic jaw. For 10 points, name this family, the long-time rulers of Austria.

ANSWER: The Hapsburg-Lorraine Family [or The House of Hapsburg or the House of Habsburg]

<Bentley>

3. This author's comic creations include police lieutenant Jaime Concha, who obsessively reads Donald Duck comics instead of doing his job. In another of his novels, a redheaded Scot named Galileo Gall comes to Brazil, where he joins the revolution of the Counselor at Canudos. In another of this author's works, Alberto's parents try to toughen him up by sending him to the (*) Leoncio Prado military academy. This author wrote *The War of the End of the World* and *The Time of the Hero* before a novel that alternates chapters of narration with the soap operas of Pedro Camacho. For 10 points, name this Peruvian author of *Aunt Julia and the Scriptwriter*.

ANSWER: Mario Vargas Llosa

<Nediger>

4. **Ralph Pearson classified these entities as “hard” if they contained a high-energy LUMO and “soft” if they contained a low-energy one. These compounds include a common catalyst for the Friedel-Crafts reactions and for halogenating benzene; other examples include (*) carbocations and the central atom in any coordination compound. These compounds are useful for removing halogen atoms from molecules, as they act as electrophiles in nucleophilic addition. For 10 points, name these compounds that act as electron acceptors in a namesake American’s acid-base theory.**

ANSWER: Lewis acids [prompt on acids]

<Wynne>

5. **One ruler of this country was assassinated by Dimitri Tsafendas, and it passed the Population Registration Act in 1950. This country was offered nuclear weapons by Israel according to a 2010 book by Sasha Polakow-Suransky. Torch Commando was a group that protested disenfranchisement in this country in the 1950s, while (*) Umkhonto we Sizwe, responsible for the Church Street bombing, was a more militant group once partly based at Rivonia Farm in this country. Prime ministers of this country included Henrik Verwoerd and John Vorster, who dealt with the Sharpeville Massacre and Soweto Uprising, respectively. F.W. de Klerk eventually ruled, for 10 points, what country home to the African National Congress and apartheid?**

ANSWER: Republic of South Africa

<Haddad-Fonda>

6. **The char joog no chanto is performed by Nizari Ismailis due to their belief in this process. In Hinduism, the illusions produced by *maya* promote this process which is undergone by the *jiva*, or eternal soul, and a common metaphor for it involves the casting off and acquisition of new clothing. This process is central to (*) *samsara*, and it is escaped through *moksha*. It is mediated by an individual’s *karma*, which may allow one to access the heavenly planets when it occurs. For 10 points, name this process common to Jainism, Hinduism, and Buddhism, which is has been undergone several times by the Buddha and is ended in *nirvana*.**

ANSWER: reincarnation [or rebirth; or transmigration of souls; or punarbhava; or punarbhava]

<Surya>

7. **These structures are degraded at an abnormally high rate in sufferers of Werner syndrome. They can exist in stacks of formations stabilized by Hoogsteen hydrogen bonding and the presence of sodium or potassium ions between formations, which are called G-quadruplexes. The majority of tumor cells demonstrate unusually high activity of the (*) reverse transcriptase that creates these structures. They are constructed of a series of TTAGGG repeats, and apoptosis or senescence results when they become too short. For 10 points, name these structures that temporarily solve the end-replication problem by protecting the exposed ends of chromosomes.**

ANSWER: telomeres

<Kirsch>

8. This movement included the sculptor of *Virgilia*, Thomas Woolner. One member of this movement depicted a piano and a woman leaping from a suited man's lap in *The Awakening Conscience*. Another of its members showed a kneeling woman dressed in white and blue in a carpentry shop near a boy with stigmata in *Christ in the House of His Parents*. Its members included the artist of (*) *The Light of the World*, William Holman Hunt, and one who painted a woman floating midstream with her eyes open in *Ophelia*, John Everett Millais. Their founder painted *The Blessed Damozel* and *Beata Beatrix*. For 10 points, name this group founded by Dante Gabriel Rossetti, whose name implies a return to standards before the Renaissance.

ANSWER: Pre-Raphaelite Brotherhood

<Jackson>

9. Prior to this battle, the victorious commander landed his troops in Milford Haven. In the lead-up to this battle, John Howard, the Duke of Norfolk, was killed in nearby fighting, and this battle was followed two years later by the Battle of Stoke Field. The winner here later had to deal with uprisings led by the supposed Earl of Warwick and (*) Perkin Warbeck. The losing monarch of this battle fought near Ambion Hill is often accused of having murdered the Princes in the Tower, and that monarch was famously unhorsed during this engagement. A 1485 victory for the House of Lancaster, for 10 points, name this victory for Henry VII over Richard III in the Wars of the Roses.

ANSWER: The Battle of Bosworth Field

<Bentley>

10. The two types of this interaction are called “vertices” and referred to as either charged or neutral current. The Cronin-Fitch experiment concerned a process mediated by this force. This parity-violating interaction has very massive gauge bosons. This is the only mechanism by which quark (*) flavor can change. Sheldon, Salam, and Weinberg won the 1979 Nobel Prize for predicting its unification with electromagnetism. This force is transmitted by the exchange of W and Z bosons. For 10 points, name this force governing radioactive decays.

ANSWER: weak nuclear force

<Watkins>

11. In this work, Miss Gisa angrily scratches the protagonist with her cat's claw to make sure it is still sharp. Another character in this novel is ostracized for rejecting the official Sortini when he sends her a lewd letter. In this novel, Olga and Amalia guide the protagonist to the Bridge Inn, and the protagonist befriends their brother, Barnabas. The protagonist of this novel attempts to meet the enigmatic Klammer by marrying his former mistress, the barmaid (*) Frieda. At the end of this novel, the protagonist has failed to assume his post and works as a janitor. For 10 points, name this unfinished novel about the land surveyor K., written by Franz Kafka.

ANSWER: *The Castle* [or *Das Schloss*]

<Bollinger>

12. Two of these polygons are the subjects of Pedoe's inequality, for which equality obtains only when the two polygons are similar. The unique ellipse that can be inscribed in one of these polygons is named for Jakob Steiner. Their side lengths are related to the length of another line segment by (*) Stewart's theorem, while a theorem giving a concurrency condition for certain lines in this shape is named for Giovanni Ceva. The area of this polygon is given by Hero's formula, and the laws of sines and cosines describe this kind of shape. For 10 points, name this polygon whose interior angles sum to one hundred eighty degrees and that has three sides.

ANSWER: triangles [accept three-sided polygon or other equivalent complete definitions before mention]

<Watkins>

13. This territory's so-called "Lash Law" was circumvented by an 1855 act of Congress allowing the African-American George Washington Bush to keep his land. John Breckenridge's 1860 running mate, Joseph Lane, served as its first territorial governor. Settlers in this territory used the Barlow Road as an alternative to crossing this territory's major river; that crossing typically began at the (*) Dalles. It was made an official U.S. territory in 1848, four years after a James K. Polk campaign slogan promised to fight if its northern boundary did not reach 54 degrees 40 minutes. For 10 points, name this territory whose settlers, concentrated in the Willamette Valley, often journeyed there along a namesake trail.

ANSWER: Oregon Territory [or Oregon Country]

<Wynne>

14. Enrico Bancone popularized this man's statement that it was theoretically possible for a socialist economy to exactly mimic a free market economy's output through careful calculation. Where N is the number of people with higher incomes than x, this man's namesake distribution estimates income distribution as $\log N = \log A + m \log x$. This coiner of the term (*) "ophelimity" also wrote about an 80-20 rule in his magnum opus *Mind and Society*. That work by this man also introduced a wealth distribution in which no participant can benefit without harming another participant. For 10 points, name this Italian fascist economist most famous for his namesake "optimality."

ANSWER: Vilfredo Pareto

<Meade>

15. One book with this city's name in its title was a "retroactive manifesto" for part of it. That work described this city as *Delirious* and was written by Rem Koolhaas. In this city, Norman Foster designed a building with interlocking triangular glass panels, the Hearst Tower. Buildings in this city include the Chippendale-topped Sony Building. One building in this city is shaped by the triangular city block on which it lies, while another was designed in the International Style by (*) Phillip Johnson and Ludwig Mies van der Rohe. This home of the Woolworth Building houses an Art Deco building with a terraced crown and ornamentation based on cars. For 10 points, name this city, home of the Seagram Building, the Chrysler Building and the Empire State Building.

ANSWER: New York City

<Rosenthal>

16. In one of this author's stories, Mrs. Sommers indulges herself by watching a play and buying new gloves with an "unexpected fifteen dollars." This author of "A Pair of Silk Stockings" wrote a story in which Bibi and Bobinot cannot return to their store, allowing the bored (*) Calixta to enjoy a night with Alcee. The most famous work by this author of "The Storm" opens with a parrot crying "*Allez-vous en!*" That work ends with Leonce's wife, whose friends include the pianist Mademoiselle Reisz, allowing herself to drown. For 10 points, name this Creole author, who created Edna Pontellier in *The Awakening*.

ANSWER: Kate Chopin

<Gaurav>

17. Marpessa chose the mortal Idas over this god, who avenged the death of his child by Coronis. He was forced to serve King Admetus as a slave for killing three Cyclopes. Another of this god's lovers was killed by the jealous Zephyr with a stray discus. This god flayed the satyr (*) Marsyas after a music contest, cursed Cassandra to never be believed, and killed the Python to claim Delphi. This god fiercely defended the honor of his mother Leto with help from his twin sister Artemis. For 10 points, name this Greco-Roman god of prophecy, music, and light.

ANSWER: Apollo

<Angelo>

18. A variation in this composition called *Brillante, alla polacca* is played by the violins. This work includes parts for the snare drum, woodblock, and the slapstick. One of its variations begins with timpani, which play a ritornello between the appearances of other instruments. The piccolo opens a prominent fugue in this piece, and the percussion both finish the opening statement of the theme and present the last variation. This piece was based on a rondo theme from (*) *Abdelazar*, by Henry Purcell. *Sotto voce* sections of this composition allow for narration by Eric Crozier explaining which instruments the listener is hearing. For 10 points, name this piece intended to teach children about the different instruments of an ensemble, written by Benjamin Britten.

ANSWER: The Young Person's Guide to the Orchestra: *Variations and Fugue on a Theme by Purcell*

<Kirsch>

19. One work titled for this concept describes the property *kalokagathia*; that work begins by refusing to agree with a poem by Theognis and was once believed to be by a Rhodesian student named Eudemus. Another work on this concept distinguishes one general form and many particular forms of justice in its fifth book. That work's last chapter advocates political life if the ideal (*) contemplative life is unattainable, and earlier advocates for *eudaimonia*, or happiness, as derived from virtues which are themselves the mean between two extremes. For 10 points, name this concept in the titles of *Eudemian* and *Nicomachean* works by Aristotle, which is closely related to morals.

ANSWER: Ethics [or Ethika; or Ethikon]

<Jackson>

20. To the speaker of this poem and “to darkness” is left the world by a ploughman who “homeward plods his weary way.” The speaker of this poem muses about “hands that the rod of empire might have swayed, or waked to ecstasy the living lyre.” The denizens of the title location of this poem were “forbade to wade through slaughter to a throne,” meaning one of them may be “some (*) Cromwell guiltless of his country's blood.” This poem concerns those who lived “far from the madding crowd's ignoble strife,” and it begins as “the curfew tolls the knell of parting day.” For 10 points, name this poem by Thomas Gray.

ANSWER: “Elegy Written in a Country Churchyard”

<Angelo>

21. These particles are solvated in strongly reducing solutions, such as that used in the Birch reduction. The charge of these particles was measured in an experiment that balanced the gravitational and buoyant forces acting on drops of (*) oil against their interaction with an electric field; that experiment was conducted by Robert Millikan. For 10 points, name these negatively charged first-generation leptons discovered by J. J. Thomson, which are found in the atom in a “cloud” around the nucleus.

ANSWER: electrons

<Watkins>

22. This man wrote a poem in which a king ends up ordering himself hanged after his crown is knocked off by an arch. That poem, “The Tale of Melon City,” was included in the collection *Mappings*. He wrote about the love affair between a violinist and a pianist in *An (*) Equal Music*. His novel about four California yuppies, including the sculptor Janet Hayakawa and the religious Ed, was written in the same tetrameter sonnet form as Eugene Onegin. This author of *The Golden Gate* also wrote a massive novel about Rupa’s efforts to find the title character for Lata. For 10 points, name this Indian author of *A Suitable Boy*.

ANSWER: Vikram Seth

<Nediger>

23. This man lost his post as Secretary to the Committee for Foreign Affairs by using top-secret documents to expose the wrongdoing of Silas Deane. He attacked those who traded in the “unnatural commodity” of men in “African Slavery in America” and blasted Lord Howe for ordering the cessation of all “provincial congresses, committees [or] conventions.” That latter work also stated, “Tyranny, like Hell, is not easily conquered.” While in Europe this man published the 1791 work (*) *Rights of Man*, but he’s best known for a work that begins “these are the times that try men’s souls” and that was written to bolster support for George Washington’s army. For 10 points, name this author of “The American Crisis” and “Common Sense.”

ANSWER: Thomas Paine

<Bentley>

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Packet 1

Bonuses

1. This leader's wife Clotilde was responsible for his conversion to Christianity, and his father extended his tribe's influence by beating the Allemanni and the Visigoths. For 10 points each:

[10] Name this ruler, whose defeat of Syagrius at the Battle of Soissons spawned a dynasty named for his grandfather.

ANSWER: Clovis I

[10] Clovis founded this dynasty, whose power faded as the Mayors of the Palace gained control. Their last ruler was Childeric III.

ANSWER: Merovingian Dynasty [or the Merovings]

[10] The Merovingian Dynasty officially ended when Pope Stephen II acknowledged this king of the Franks' title in 754. This father of Charlemagne was known as "the Short."

ANSWER: Pepin the Short [or Pippin the Short; or Pepin the Great; or Pepin the Younger; or Pepin III]

<Austin>

2. Like another work by its artist, this triptych's right panel is darker and redder than the rest of the work, while God holds a globe above the Garden of Eden on its left panel. For 10 points each:

[10] Name this work in which the titular conveyance crushes the people in its path while a blue creature plays an instrument on top of it.

ANSWER: *The Haywain*

[10] *The Haywain* is a work by this Netherlandish artist, who created a table showing the *Seven Deadly Sins* and a bunch of people pigging out on a boat in the *Ship of Fools*.

ANSWER: Hieronymus Bosch [or Jeroen Anthoniszoon van Aken]

[10] Hieronymus Bosch also painted this triptych, which depicts masses of frolicking nudes in its namesake area in the center and a litany of monsters and tortures in its Hell scene on the right.

ANSWER: *The Garden of Earthly Delights*

<Bentley>

3. Ways to approximate solutions to these problems include the Runge-Kutta methods and the Adams-Bashforth method. For 10 points each:

[10] Name these problems, classic types of which are population growth models and falling objects, that relate a function to its rate of change.

ANSWER: first-order ordinary differential equations [or first-order ODEs; or diff eqs; or initial-value problems]

[10] Another method to approximate first-order ODEs' solutions is this one, which iteratively calculates tangent lines to the solution curve over small intervals.

ANSWER: Euler's method [prompt on tangent-line method]

[10] This predator-prey model uses two birth/death rate parameters and two parameters for the amount of interaction between the two species, producing a periodic solution for the population of each.

ANSWER: Lotka-Volterra equations [or Lotka-Volterra model; accept other synonyms]
<Greenthal>

4. The *deus ex machina* of this work is provided by a trust left by Alethea for the protagonist in the care of the narrator, Overton. For 10 points each:

[10] Identify this 1903 novel that attacks British organized religion by following Ernest, the son of Theobald and Christina Pontifex, who renounces Christianity after attempting to sexually assault Miss Maitland.

ANSWER: The Way of All Flesh

[10] This author of "Darwin Among the Machines" and *The Fair Haven* is better known for novels like *The Way of All Flesh* and *Erewhon*.

ANSWER: Samuel Butler

[10] Butler theorized that this set of poems was actually written as an encrypted ode to their author's secret gay lover. The most famous of these works begins, "Shall I compare thee to a summer's day?"

ANSWER: Shakespeare's sonnets [accept equivalents]
<Ray>

5. [NOTE: Be careful not to read the alternate answer to the first part, though it's of course fine if the player responds by giving it.]

This work's second movement is an *andante con moto* in E major, and it remained in the possession of Anselm Hüttenbrenner for over 30 years after the composer's death. For 10 points each:

[10] Name this symphony in B minor that only has two movements.

ANSWER: the Unfinished Symphony [or Franz Schubert's Symphony No. 8 in B minor]

[10] This Austrian wrote that unfinished eighth symphony, but completed his "Great" C major ninth symphony. His *lieder* include one based on a Goethe poem, *Der Erlkönig*.

ANSWER: Franz Schubert

[10] Schubert wrote this song cycle in which a man goes traveling after losing his beloved to another suitor. It opens with "Gute Nacht" and concludes with a song about a hurdy-gurdy man.

ANSWER: Winterreise [or Winter Journey]
<Rosenberg>

6. Student protestors in England succeeded in 2010 in making everybody mad at them. For 10 points each:

[10] Many students have protested spending cuts introduced into the British budget by this Conservative Party leader who became prime minister in May 2010.

ANSWER: David Cameron

[10] More ire has been directed at this party led by Nick Clegg, which went back on campaign promises not to raise student fees because of its unpopular coalition with the Conservatives.

ANSWER: Liberal Democrats [or Liberal Democratic Party; or Lib Dems]

[10] The focus of student protests has been this October 2010 document, colloquially named for a former BP CEO, that recommended removing the government's cap on what universities could charge for tuition.

ANSWER: Browne Report [or Browne Review; or Independent Review of Higher Education Funding and Student Finance]

<Haddad-Fonda>

7. The Underworld of Virgil's *Aeneid* has two of these structures, one made of horn and an unluckier one made of polished ivory through which pass false dreams. For 10 points each:

[10] Name these manmade structures presided over by Janus, whose "Scaean" example was located just outside the city of Troy.

ANSWER: gateways [prompt on door]

[10] This Sumerian-Babylonian goddess of the dead had seven gates leading into the underworld of Irkalla. She was forced to wed Nergal after he got through all seven and raped her.

ANSWER: Ereshkigal

[10] Ereshkigal forces this lover of the agricultural figure Tammuz to remove one piece of clothing at each gate when she visits the underworld. She is the Mesopotamian goddess of love and fertility.

ANSWER: Ishtar [or Astarte; or Inanna]

<Jackson>

8. This country was promised territory like Tyrol in the London Pact, and its navy was destroyed at the Battle of Lissa. For 10 points each:

[10] Identify this modern-day country, home of the original Irredentism movement.

ANSWER: Italy [or the Italian Republic]

[10] One proponent of Irredentism was this leader of the Redshirts who was instrumental in the unification of Italy. He led the Expedition of the Thousand against the Kingdom of the Two Sicilies.

ANSWER: Giuseppe Garibaldi

[10] Another supporter of Italian unification was this first prime minister of Italy and founder of the newspaper *Il Risorgimento*.

ANSWER: Camillo Paolo Filippo Giulio Benso, Count of Cavour, of Isolabella and of Leri
[accept either underlined answer]

<Nediger>

9. Couette and Hele-Shaw flows are among the few known cases where they can be solved exactly. For 10 points each:

[10] Identify these notoriously hard to solve differential equations that model the flow of fluid elements just as Newton's second law does for solids.

ANSWER: **Navier-Stokes** equations

[10] By making many assumptions such as inviscid, incompressible flow, fluid mechanics becomes much easier through this principle which states that as a fluid's velocity increases, the pressure it exerts decreases.

ANSWER: **Bernoulli**'s principle

[10] Another exact solution to the Navier-Stokes equations is this equation which describes viscous flow through a cylindrical pipe, often used to model blood flow.

ANSWER: Hagen-**Poiseuille** equation

<Rosenberg>

10. In this novel, Vautrin has Victorine's brother killed to clear the way for Eugene de Rastignac. For 10 points each:

[10] Name this novel, in which an elderly pasta maker is neglected by his spoiled daughters, Anastasie and Delphine.

ANSWER: **Père Goriot** [or **Old Goriot**; or **Father Goriot**]

[10] *Père Goriot* is one of the "scenes from Parisian life" in this author's *Human Comedy*.

ANSWER: Honoré de **Balzac**

[10] In this novel from the *Human Comedy*, both the banker des Grassins and the lawyer Cruchot want their sons to marry the title character, but the title character, Felix's daughter, falls for Charles.

ANSWER: **Eugénie Grandet**

<Nediger>

11. In the 1960s, rival brigades within the Palestine Liberation Organization developed, each named after great Arab victories over non-Muslim foes. Answer these questions about those battles, for 10 points each.

[10] The Syrian force, founded in 1964, was named the Hattin Brigade after the 1187 battle in which this founder of the Ayyubid dynasty crushed the Crusaders. That battle prompted the Third Crusade.

ANSWER: **Saladin** [or **Salah al-Din**]

[10] The Egyptian brigade was named after the Battle of Ayn Jalut, in which Sultan Qutuz, who was this type of slave soldier, defeated the invading Mongols. Thereafter, these slave-sultans ruled Egypt until 1516.

ANSWER: **Mamluks** [or **Mamelukes**; or **mamalik**]

[10] The Iraqi brigade was named after the Battle of Qadisiyya, in which the last forces of Sassanid Persia were defeated by forces loyal to this second Rightly Guided Caliph.

ANSWER: **'Umar** ibn al-Khattab

<Haddad-Fonda>

12. This thinker legendarily summarized the Torah while standing on one foot by giving the golden rule and concluding “The rest is all commentary; now go and study.” For 10 points each:
[10] Name this second-century BCE rabbi who debated many aspects of Jewish law with Shammai.

ANSWERS: Hillel the Elder

[10] One Hillel-Shammai debate concerned whether the candles for this holiday, should be lit oldest to newest or newest to oldest. The candles represent a miraculously extended supply of oil.

ANSWER: Chanukah [or Hanukkah]

[10] Commentary by rabbis, including Shammai and Hillel, is found in this work, whose six orders include “Damages” and “Purities.”

ANSWER: Mishnah

<Greenthal>

13. During World War II, this photographer took pictures of residents of the Japanese internment camp at Manzanar. For 10 points each:

[10] Name this photographer who mostly took scenic pictures like *Moonrise*, *Hernandez*, *New Mexico*.

ANSWER: Ansel Easton Adams

[10] Many of Adams’s works, like *El Capitan* and *Jeffrey Pine*, *Sentinel Dome*, were taken in this California national park.

ANSWER: Yosemite National Park

[10] Adams used a red filter to achieve his desired effect in this early work showing the face of a black mountain against a dark sky. Name either the photograph or the mountain it depicts.

ANSWER: Monolith, the Face of Half Dome [accept either]

<Tabachnick>

14. The military-industrial complex makes up part of the titular group of this sociological work. For 10 points each:

[10] Name this book, which theorizes that only competition among the members of the titular group prevents it from having total control over society.

ANSWER: *The* Power Elite

[10] This sociologist used fieldwork in Cuba to write his seminal *Listen, Yankee!* and also wrote *The Power Elite*.

ANSWER: Charles Wright Mills

[10] C. Wright Mills wrote this work, which described the challenges and organization of middle management, as a complement to *The Power Elite*.

ANSWER: White Collar

<Meade>

15. Although his murderer twice escaped punishment thanks to hung Mississippi juries, his killer was eventually imprisoned for the crime in 1994. For 10 points each:

[10] Identify this African-American civil rights activist who was killed on June 12, 1963 in Jackson, Mississippi following a speech given on civil rights by the president.

ANSWER: Medgar Wiley Evers

[10] Medgar Evers was a field secretary for this prominent African-American organization, whose Legal Defense and Education Fund helped win *Brown v. Board of Education*.

ANSWER: NAACP [or National Association for the Advancement of Colored People]

[10] Evers had worked to support James Meredith's enrollment in the University of Mississippi. This U.S. attorney general at the time worked out a deal with Governor Barnett to make it happen; he was later killed at the Ambassador Hotel in 1968.

ANSWER: Robert Francis Kennedy [or Bobby Kennedy; or RFK]
<Bentley>

16. These enzymes may function as monomers, dimers, or hexamers, but they all employ energy generated by ATP hydrolysis. For 10 points each:

[10] Name these enzymes that separate the strands of double-stranded DNA so that replication can begin.

ANSWER: helicases

[10] In order to separate the strands, helicase uses the energy from ATP to break these bonds holding complementary bases together. There are three between C and G bases and two between A and T bases.

ANSWER: hydrogen bond [or H bond]

[10] While helicase breaks hydrogen bonds, this enzyme severs phosphodiester bonds in order to wind and unwind the DNA double helix. Gyrase is one type of this enzyme.

ANSWER: topoisomerases

<Kirsch>

17. This man wrote his *Carmen Saeculare* to be performed at imperial games. For 10 points each:

[10] Name this Roman poet, who presents literary advice in his epistle *Ars Poetica* and is also known for his collections of odes, epodes, and satires.

ANSWER: Horace [or Quintus Horatius Flaccus]

[10] In Epode IX, Horace mocks this man for being controlled by a woman. This man is also the target of Cicero's vicious *Philippics*.

ANSWER: Marc Antony [or Marcus Antonius]

[10] This patron is addressed in Horace's 9th Epode as "blessed." Under Augustus, this man also served as a patron of such other poets as Propertius and Vergil.

ANSWER: Gaius Cilnius Maecenas

<Angelo>

18. This three-book work may have first referred to the group beginning with Nerva as the “Five Good Emperors,” and it claims that the multitude, though wiser than any king, is irreparably fickle. For 10 points each:

[10] Name this treatise drawing political insight from *virtù* of men in the Roman Republic.

ANSWER: **Discourses on Livy** [or **Discursi** sopra la prima deca di Tito Livio]

[10] This Florentine realist author of *Discourses on Livy* compared Fortune to a divertable river or a woman to be beaten up in a manual that also praised Cesare Borgia, *The Prince*.

ANSWER: Niccolò **Machiavelli**

[10] The *Discourses*, much like Rousseau’s later work *The Social Contract*, heap praise on this ancient lawmaker and encourage modern states to find a man with wisdom like his.

ANSWER: **Lycurgus** [or **Lukourgos**]

<Jackson>

19. In one of this man’s plays, Stevie kills the title animal, Sylvia, which her husband Martin is having an affair with. For 10 points each:

[10] Name this author of *The Goat* and *The Sandbox* who wrote about Harry and Edna’s visit to Tobias and Agnes in *A Delicate Balance*.

ANSWER: Edward **Albee**

[10] Albee also wrote this play, in which the young couple Nick and Honey play “Hump the Hostess” at George and Martha’s.

ANSWER: **Who’s Afraid of Virginia Woolf**

[10] In this other Albee play, Peter stabs Jerry to defend his park bench after hearing about how Jerry fed his landlady’s dog a poisoned hamburger.

ANSWER: **Zoo Story**

<Bollinger>

20. This process’s allopatric form occurs when similarly sized populations are separated by a geographic barrier, and its peripatric form occurs when a small population separates from a larger one. For 10 points each:

[10] Name this process by which two groups of organisms evolve until they can no longer interbreed successfully.

ANSWER: **speciation** [accept any answer involving new species being evolved]

[10] This is the term for the loss of genetic variation that results when a new, small population branches off from a large one, as in peripatric speciation.

ANSWER: **founder** effect

[10] This other form of speciation occurs without the presence of a geographic barrier. Instead, organisms mate nonrandomly with their nearest neighbors. The resulting offspring are more successful than those that result from mating with more distant neighbors.

ANSWER: **parapatric** speciation

<Kirsch>

21. This structure's activity is regulated by hormones like aldosterone and ADH. For 10 points each:

[10] Name this functional unit of the kidney.

ANSWER: **nephrons**

[10] This part of the nephron is a tuft of capillaries that helps filter the blood. While its fenestrated capillary walls allow most substances to pass through, it includes a negatively charged basement membrane that helps keep proteins out of the filtrate.

ANSWER: **glomerulus**

[10] This structure encloses the glomerulus, from which podocytes protrude into it. Filtrate from the glomerulus is collected in this saclike structure and eventually filtered to become urine.

ANSWER: **Bowman's capsule**

<Kirsch>

22. One character in this play ends up turning himself in to the law after killing Amalia. For 10 points each:

[10] Name this play about the conflict between the brothers Karl and Franz Moor.

ANSWER: *The **Robbers*** [or *Die **Räuber***]

[10] *The Robbers* was written by this Sturm und Drang playwright, a friend of Goethe who also penned the play *William Tell* and the poem "Ode to Joy."

ANSWER: Johann Christoph Friedrich von **Schiller**

[10] This was Schiller's first historical play. It was loosely based on the title Spanish prince's conflicted relationship with his father, Philip II.

ANSWER: **Don Carlos** [or **Dom Karlos**, *Infant von Spanien*]

<Nediger>

23. Identify the following about the military of the Soviet Union, for 10 points each.

[10] One of the best-known weapons in the Soviet arsenal was the class of fighter jets given this three-letter name. Individual models include the 25, which was capable of speeds up to Mach 2.8 at an altitude of over 80,000 feet.

ANSWER: **MiG**

[10] One myth about this battle was that T-34s, T-70s and other Soviet tanks rammed German Panzers. Part of Operation Citadel, this 1943 Russian victory and largest tank battle in history included the Battle of Prokhorovka.

ANSWER: Battle of **Kursk**

[10] Oscar and Typhoon were code names NATO gave to two classes of these entities. Individual examples include the K-219 and the K-19.

ANSWER: nuclear-powered **submarines** [or **subs**]

<Bentley>