

**2015 NSC - Official Scoresheet**

Round	06	Room	
Bracket			
Reader			

Team									Team								
Player Names																	
Q#					Bonus	Steals	Ques. Total	Run. Score						Bonus	Steals	Ques. Total	Run. score
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TB3																	
SD																	
Player 20s																	
Player 10s																	
Point totals																	
Final score																	
	Substitutions before Tossup 11								Substitutions before Tossup 11								
	Out:				In:				Out:				In:				
	Out:				In:				Out:				In:				

Circle winning team above. Clearly mark if game goes to OT/SD. Fill out "Point totals" row completely. If there are substitutions, please note tossups by each player in "20s" and "10s" rows. Below is for Tab Room use only:

RH	RS	BH	BS	Left	Right	BH	BS	RH	RS
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PACE NSC 2015 - Round 06 - Tossups

1. Alexander Kashlinsky used the term "dark flow" to describe an unexplained form of this quantity in galaxy clusters. The statistical dispersion of this quantity for an elliptical galaxy is related to its luminosity by the Faber-Jackson relation. This quantity's value relative to a rest frame is called the "peculiar" type of it, and it is not explained by (\*) Hubble's Law. The change in this quantity is related to the logarithm of the initial mass divided by the final mass by the rocket equation. By setting the kinetic energy equal to the potential energy, one can derive the minimum value for this quantity for an object to escape from a body's gravitational field. For 10 points, name this quantity, the time derivative of position.

ANSWER: velocity [or motion; or speed] <Jose>

2. During this conflict, Leon Chester Thrasher died on the *Falaba*. In this war, Ralph Van Deman helped organize groups like the Terrible Threateners into the American Protective League and people volunteered as "Four Minute Men" to make short propaganda speeches. The profitable munitions industry of this war was later investigated by the Nye Committee. During this war, the Committee on Public Information was led by (\*) George Creel. The U.S. Food Administration was created during this war and was headed by Herbert Hoover. Charles Evans Hughes ran for president a year before America entered this war in response to the Zimmerman Telegram. For 10 points, Woodrow Wilson claimed that "he kept us out of" what war in his 1916 presidential campaign?

ANSWER: World War I [or First World War; or WWI; or the Great War] <Wang>

3. Peptide bonds are reduced by this element in the Lowry assay for protein concentration. Complex IV of the ETC relies on iron and this element exchanging electrons. This element's tetraammine complex is colored indigo, making it a great detector for ammonia. The original high-temperature superconductors were oxides of this element. It only forms +1 and +2 oxidation states. This element and (\*) zinc made up a Daniell cell, the prototypical galvanic cell. The standard for electrical conductivity is given relative to this element. This element reacts with carbonates to form verdigris. It alloys with both zinc and tin to make brass and bronze respectively. For 10 points, name this metal found right above silver and gold on the Periodic Table.

ANSWER: copper [or Cu] <Silverman>

4. One of this author's characters receives an aquamarine bowl at a "house-heating" party where he is fired by Dr. Hagen. A character is misled by a magazine that misprints "mountain" as "fountain" in a story about a woman's near-death experience in one of his novels, while another features a recurring motif in which a hotel where the main characters sleep together and another character's play are among the things called a variant of "The (\*) Enchanted Hunter". This author who wrote about an employee of Waindell College in *Pnin* also created Charles Kinbote, who believes himself to be the King of Zembla and provides commentary on a 999-line poem by John Shade. For 10 points, name this author of *Pale Fire* who wrote about Humbert Humbert in *Lolita*.

ANSWER: Vladimir Nabokov [or Vladimir Vladimirovich Nabokov] <Brownstein>

5. In the *Argonautica*, Polydeuces kills the Bebrycian king Amycus with a pair of these objects made of cowhide. In the *Aeneid*, Entellus wins a contest using a *cestus*, an object of this kind. In the *Gylfaginning*, one of these objects owned by Utgard-Loki turns out to be the "great hall" in which Thor and his servants had experienced earthquakes during the night. A set of these objects had to be used because a gadfly sent by Loki distracted Brokkr and forced him to make a (\*) weapon's handle much shorter than it should have been. The belt Megingjorth, a hammer, and a set of these objects named Jarngreipr are the most important possessions of the Norse god of thunder. For 10 points, name these items of clothing, an iron pair of which enables Thor to grasp Mjolnir.

ANSWER: gloves [or gauntlets] <Zhang>

6. The second section of this ballet begins with the strings playing persistent eighth-note double stops with shifting accents, all down-bow. With assistance from Millicent Hodson, the Joffrey Ballet reconstructed the original choreography from this ballet in 1987. During the story, a series of games is interrupted by the "Procession of the Wise Elder." In the final section of this ballet, which changes meter almost every measure, a (\*) chosen victim dances herself to death. An unusually high bassoon solo opens this ballet, which closes with the "Sacrificial Dance." The adventurous music, combined with Vaslav Nijinsky's angular, forceful choreography, caused a riot on the night of the Paris premiere. For 10 points, name this ballet by Igor Stravinsky about pagan Russia.

ANSWER: *The Rite of Spring* or *Le Sacre du Printemps* or *Vesna svyashchennaya* <Rosenberg>

7. Harry Pollitt was a leader of a movement urging non-intervention in this war, known as "Hands Off" the country where it took place. In this war's aftermath, the "Mad Baron" Roman von Ungern-Sternberg attempted to establish his own independent state to the south. In this war's eastern front, Alexander Kolchak declared himself "Supreme Ruler" shortly before he was imprisoned by the rebellious Czechoslovak Legion. The policy of "War (\*) Communism" was implemented during this war. After the Allied intervention in this war petered out, Japanese forces continued to occupy Siberia. At a basement in the Ipatiev House in Yekaterinburg during this war, Nicholas II and his family were executed. For 10 points, name this 1917-22 war between White Army and the Bolshevik Red Army.

ANSWER: Russian Civil War [or Grazhdanskaya vojna v Rossii; prompt on Russian Revolution; prompt on October Revolution] <Wang>

8. This man was followed around without his consent by journalist Gay Talese for several months as Talese wrote an article for *Esquire* titled "[this man] Has a Cold". He re-recorded a version of the song "High Hopes" to support a presidential campaign. Gennadi Gerasimov compared one of this man's songs to the Soviet Union's abandonment of the Brezhnev Doctrine, leading to a (\*) new Soviet diplomatic policy named for this man. After helping organize an Inaugural Gala, this musician had a falling out with President Kennedy due to his relationship with the American Mafia. Peter Lawford and Sammy Davis, Jr. joined him in an informal group of performers nicknamed the "Rat Pack." For 10 points, name this American singer of "Theme from New York, New York" and "My Way."

ANSWER: Frank Sinatra [or Francis Albert Sinatra] <Weiser>

9. In the late 1950s, Lacey and Lacey's studies of responses to this phenomenon introduced the concept of "individual response-stereotypy." Modern understanding of this concept began in studies of a three-stage condition called GAS, or General Adaptation Syndrome, by Hans Selye (SEL-yay). The Social Readjustment Rating Scale measures the likelihood that this condition has been caused by major life events. It's not heart disease, but lower incidence of this thing distinguishes (\*) "Type B" personalities from "Type A" personalities. The long-term type of this response results in release of the hormone cortisol. Lazarus and Folkman's first study of "coping responses" defined them as reactions to this condition. For 10 points, name this psychological response to disturbing stimuli.

ANSWER: stress response <Jackson>

10. A character in this novel complains to the Duchess of Monmouth that "the man who could call a spade a spade should be compelled to use one." This novel's preface states that "dislike of realism is the rage of Caliban upon seeing his own face" before stating "all art is quite useless." A sailor in this novel overhears a man being called "Prince Charming", though that man's (\*) youthful face puts off the sailor's accusations that he was responsible for the suicide of the Shakespearean actress Sibyl Vane. The painter Basil Hallward is murdered by this novel's protagonist, who is mentored by Lord Henry Wotton. For 10 points, name this novel whose title portrait ages and becomes disfigured in place of its hedonistic subject, written by Oscar Wilde.

ANSWER: *The Picture of Dorian Gray* <Cheng>

11. French Interior Minister Charles Pasqua was jailed for facilitating Pierre Falcone's arms shipments to this country. Secret U.S. military aid to this country was prohibited by the Clark Amendment. Cuban troops deployed to this country fought in the Battle of Cuito Cuanavale during a war interrupted by the Bicesse Accords. This country's northern border was home to Holden Roberto's FNLA during its war of independence. Its 26-year-long (\*) civil war pitted Agostinho Neto's MPLA, which was mostly funded by oil revenue, against Jonas Savimbi's UNITA, which was mostly funded by the sale of diamonds. Eduardo dos Santos currently leads this country. For 10 points, name this African country, a former Portuguese colony with a capital at Luanda.

ANSWER: Angola [or Republic of Angola] <Wang>

12. Measuring this value for a semiconductor is done with a four-point probe and allows one to determine the concentration of impurities. A device first fabricated at HP Labs using a thin film of titanium dioxide has a value for this quantity that depends on the history of current in the device. After the turn-on voltage, an ideal diode has a value of zero for this quantity. An unknown value of this quantity can be found by setting up a diamond shape and adjusting until there's no voltage drop across the bridge, a method popularized by Charles (\*) Wheatstone. This quantity is the real part of impedance. For a wire this quantity equals rho times length over cross-sectional area, where rho is the inverse of the conductivity. This quantity adds when its namesake circuit elements are placed in series. For 10 points, what quantity is equal to voltage divided by current, by Ohm's law?

ANSWER: resistance [or R; or resistivity or rho until "impedance" is read] <Schindler>

13. This is the family name most commonly used to refer to the politician who tried to stop the repeal of a law banning female displays of wealth, the *Lex Oppia*, who shared the consulship with his mentor Lucius Valerius Flaccus, and wrote the *Origines*, the first prose history in Latin. This is also the family name of the politician who, after hearing about the Republican defeat at the Battle of Thapsus, committed suicide in Utica, and rallied the (\*) Optimates in opposing the agricultural reforms pushed by Julius Caesar. The earlier Roman politician with this name ended every speech, no matter the topic, with the phrase "Carthago Delenda Est," meaning "Carthage must be destroyed." For 10 points, give this name shared by an Elder and Younger Roman Republic statesman.

ANSWER: Cato [or Cato the Elder; or Cato the Younger; or Marcus Porcius Cato; or Marcus Porcius Cato Uticensis] <Gupta>

14. This mountain range is home to the shortest known viper, which grows to be just over a foot long, and to a species of gazelle named for naturalist George Cuvier. The Kabyle people, who build villages in a high section of these mountains, were studied by cultural sociologist Pierre Bourdieu. Ouarzazate is a city high in a western "Anti-" section of this range, whose easternmost portion is called the (\*) Aurès region. The Ourika and Draa Rivers flow through part of this range, which is separated by the Sebou River from the Rif region to its northwest. This range's highest peak is Jebel Toubkal. The highlands south of this range contain the city of Marrakesh, which was founded by Berbers. For 10 points, name this mountain range spanning Morocco, Tunisia and Algeria.

ANSWER: Atlas Mountains [accept Tell Atlas until "Anti-"] <Jose>

15. In a posthumously published collection of this man's poems, Andrew Marvell attacked critics as "Word-peckers, Paper-rats," and "Book-scorpions". His poem addressed to Charles Cotton describes how "The joys of earth and air are thine entire". This author of "The Grasshopper" ended another poem with the couplet "I could not love thee, Dear, so much, / Loved I not honor more". "Enlarged wings that curl the flood" and "fishes that (\*) tipple in the deep" are among the things that "know no such liberty" according to a poem by this man that also includes the famous line "Stone walls do not a prison make, nor iron bars a cage". For 10 points, name this Cavalier poet of "To Lucasta, Going to the Wars" and "To Althea from Prison".  
ANSWER: Richard Lovelace <Bentley>

16. An enzyme that catalyzes the formation of this compound has erythrocyte, liver, and muscle isoforms, and is deficient in a condition that creates "burr cells." An oxidized lipoate species with a "swinging arm" is attacked by an anionic carbon in a TPP cofactor in the three-enzyme complex that dehydrogenates this compound. This compound's carboxylase catalyzes the formation of oxaloacetate in the first step of (\*) gluconeogenesis. In anaerobic conditions, NAD<sup>+</sup> can be regenerated by converting this compound to lactate. In respiration, this compound is made into acetyl-CoA, which then enters the citric acid cycle. For 10 points, name this three-carbon compound that is the end-product of glycolysis.  
ANSWER: pyruvate [or pyruvic acid] <Gupta>

17. The instigator of this event describes angels that "lift you up in their hands, so that you will not strike your foot against a stone." After this event ends, it is noted that "angels came and attended" its subject. Milton's *Paradise Regained* dramatizes this event from the Gospel of Luke, which ends when its subject declares "Do not put the Lord your God to the test." The narrative of this event immediately follows that of the (\*) baptism of Jesus, and occurs after Jesus spends forty days fasting in the desert. During this event, Jesus is instructed to turn stones into bread, to leap off of the highest point of the temple, and to bow down and worship the devil. For 10 points, identify this event in which the devil attempts to influence Jesus to sin.  
ANSWER: the temptation of Jesus Christ [or answers akin to the testing of Jesus; prompt on Jesus in the desert for forty days or similar answers before "forty days" is read] <Kim>

18. This author opened a critical guide to appreciating literature with the "parable of the sunfish". He reused the meter from his translation of *The Seafarer* to create a version of the *nekuia* from the *Odyssey* for a poem that precedes one in which the speaker tells Robert Browning to "hang it all" because "there can be but the one Sordello". This author of *The ABC of Reading* wrote about a man whose "true (\*) Penelope was Flaubert" and who seeks to "resuscitate the dead art of poetry" in his poem "Hugh Selwyn Mauberley". Sections named for John Adams, Pisa, and a "Rock-Drill" are included in a collection by this author, whose study of Chinese characters inspired his development of Imagism. For 10 points, name this fascist American poet of *The Cantos*.  
ANSWER: Ezra Pound [or Ezra Weston Loomis Pound] <Carson>

19. As an outlet for his work, this composer founded a namesake ensemble comprised of three keyboards, some winds, and a soprano who generally only sings solfege. This composer wrote the score to a film in which the liftoff of a Saturn V rocket is followed by footage of an Atlas rocket exploding; an earlier section of that score contains the song "Pruitt Igoe." (\*) Time-lapse images comprise much of that film titled after the Hopi word for "life out of balance." This composer wrote a "Portrait Trilogy" of operas and, along with Steve Reich, John Adams, and Terry Riley, is one of the major American minimalists. For 10 points, name this composer of the score for *Koyaanisqatsi* and the opera *Einstein on the Beach*.  
ANSWER: Philip Glass [or Philip Morris Glass] <Rosenberg>

20. A recent exhibit of this artist's "Regrets" at the MoMA was inspired by a beat-up photo of Lucian (LOO-see-un) Freud owned by Francis Bacon. He exhibited his Number Paintings with Leo Castelli after being discovered in Robert Rauschenberg's studio. The names of loosely delineated states are stenciled onto his painting *Map*. A canvas by this artist, with five-inch-thick paint, plays with perspective so that the closest of the three superimposed objects appears smallest. That thick paint was made with (\*) encaustic, which this artist also employed in his paintings of targets surrounded by plaster casts. His first painting of a recurring subject features 48 stars on a blue field, increased to 50 in later versions. For 10 points, name this American Pop artist of *Three Flags*.

ANSWER: Jasper **Johns** <Bentley>

21. This woman is advised to remain silent while passing old women weaving and a lame man driving a mule laden with sticks, and has sleep extracted from her face and placed in a box. This woman births the goddess of sensual pleasure, a companion of the Graces named Voluptas. This woman, whose story was first told in Apuleius's *The Golden Ass*, slips from a dragon-infested cliff from which black water pours, lets briers collect the golden (\*) wool of the Sun, and receives a crust of bread after accepting the aid of insects who sort a huge pile of grains for her. Her envious sisters convince her to sneak in a lamp to a liaison with her lover, betraying her promise to never look upon his face. For 10 points, name this nemesis of Venus, a woman who falls in love with Cupid.

ANSWER: Psyche <Gupta>

22. In one novel written in this language, the death of Colonel Delmare causes Ralph to abandon the suicide pact made with his lover Indiana. Another novel written in this language ends with the protagonist's severed head being buried in a cave inside of which is a shrine made of marble. One author who wrote in this language wrote *A Winter in Majorca*, which recounts her passionate affair with a (\*) composer. This language was used to write a novel in which the son of a woodcutter falls in love with Mathilde de la Mole and struggles between choosing the army or the clergy. That novel in this language, which depicts the rise and fall of Julien Sorel, is *The Red and the Black*. For 10 points, name this language used by George Sand and Stendhal.

ANSWER: French [or Francais] <Jose>

23. William Pitt the Younger unsuccessfully pursued an armament policy against this country as part of the Triple Alliance. This country warmly received the explorer Richard Chancellor. Ramsay MacDonald's Labor Party lost the 1924 general election in part due to a controversial and probably forged letter written by a government official from this country. Its navy accidentally fired on some British fishing vessels in the (\*) Dogger Bank incident. In the Great Game, this country and the United Kingdom vied for supremacy of Central Asia. In the 16th century, this country granted trade privileges to England at its port of Arkhangelsk. For 10 points, name this country that opened trade relations with England during the reign of Ivan the Terrible.

ANSWER: Russia [or the Soviet Union or USSR] <Bentley>

24. The worst case runtime of Floyd's algorithm is a cubic function based on the number of these objects in the input. An articulation type of one of these things creates at least one new component and is more commonly called the "cut" type of these things. One of Karp's 21 problems involves finding the minimum number of these things that form a cover. An alternative to the Bellman-Ford algorithm repeatedly checks to see if a new (\*) distance to one of these things is less than the best known distance. The cities in the NP-Hard traveling salesman problem generalize to these mathematical constructs. The shortest path between all of these things is found by Dijkstra's algorithm. For 10 points, name these structural elements of a graph that are connected by edges.

ANSWER: vertices [or vertex; or nodes; or points] <Bentley>



## PACE NSC 2015 - Round 06 - Bonuses

1. This collection includes a poem whose speaker claims to hear "the mind forg'd manacles" in "every voice" in the title city, as well as another poem that begins "I was angry with a friend / I told my wrath, my wrath did end". For 10 points each:

[10] Name this 1794 collection of poetry, published five years after a similar collection on more pleasant themes. It includes "London", "The Poison Tree", and a poem that asks "Did he who made the Lamb make thee?"

ANSWER: **Songs of Experience** [do not accept "*Songs of Innocence*" or any answers that combine the two]

[10] *Songs of Experience*, which contains "The Tyger", was written by this English poet and engraver, who later combined it with the earlier *Songs of Innocence*.

ANSWER: William **Blake**

[10] An essay analyzing Blake as a precursor to the "free love" movement was written by this Victorian poet of "The Triumph of Time", "Hymn to Proserpine", and *Atalanta in Calydon*.

ANSWER: Algernon Charles **Swinburne** <Carson>

2. This institution is the successor to the Hands of the Cause, a group which in turn succeeded the unitary leadership of Shoghi Effendi. For 10 points each:

[10] Name this extant nine-member religious body, which preserves and interprets religious texts such as the *Kitab-i-Aqdas* for millions of followers.

ANSWER: **Universal House of Justice**

[10] This tolerant monotheistic faith, founded in 19th-century Iran, looks to the Universal House of Justice for guidance.

ANSWER: **Baha'i** faith

[10] This Middle Eastern coastal city near Mount Carmel is the site of the building of the Universal House of Justice.

ANSWER: **Haifa**, Israel <Jackson>

3. Answer the following about cyclic quadrilaterals, for 10 points each:

[10] Cyclic quadrilaterals are cool because, unlike most quadrilaterals, they can be inscribed in one of these geometric shapes. These shapes are conic sections with eccentricity zero.

ANSWER: **circles**

[10] The easiest way to check if a quadrilateral is cyclic is to check if this condition is true of its angles. This fact is the case because an inscribed angle equals half the measure of the arc it subtends.

ANSWER: the **opposite angles** of the quadrilateral **add up to 180 degrees** [accept **opposite angles add up to pi radians** or any equivalent phrasings such as **opposite angles are supplementary**]

[10] Brahmagupta's formula for the area of a cyclic quadrilateral makes use of this quantity, denoted  $s$ , equal to half the sum of the side lengths of a polygon. For a triangle, area equals this quantity times inradius.

ANSWER: **semiperimeter** <Schindler>



4. One of its inhabitants writes his thoughts on life on small pieces of paper, which he then crumples up into little "pills" and keeps in his pockets. For 10 points each:

[10] Name this fictional town home to Dr. Reefy and the schoolteacher Kate Swift, who like Helen White and Louise Trunnion is a love interest for George Willard.

ANSWER: **Winesburg**, Ohio

[10] The town of Winesburg, Ohio was created by this American author of *Poor White* and *Dark Laughter*, who based it on his childhood hometown of Clyde.

ANSWER: Sherwood **Anderson** [or Sherwood Berton **Anderson**]

[10] This chapter from *Winesburg, Ohio* describes how Wing Biddlebaum, who now lives in Winesburg as a berry picker, was driven out of another town after being accused of abusing one of his students.

ANSWER: "**Hands**" <Bentley>

5. A key witness against these people was David Greenglass. For 10 points each:

[10] Name these people, a married couple, who were sentenced to death under the Espionage Act by judge Irving Kaufman for having committed a crime "worse than murder".

ANSWER: Julius and Ethel **Rosenberg** [or the **Rosenbergs**]

[10] The Rosenbergs were sentenced for passing along information on these types of weapons to the Soviets. One of these weapons was dropped by the *Enola Gay*.

ANSWER: **atomic bombs** [or **nuclear bombs**]

[10] Ethel Rosenberg became the first woman executed in the United States since boardinghouse owner Mary Surratt, who was hanged for her role in this crime.

ANSWER: the **assassination** of Abraham **Lincoln** [accept equivalents that involve **killing** Abraham **Lincoln** or helping the men that **killed** Abraham **Lincoln**] <Bentley>

6. Several centuries-old examples of these things were unearthed in Blackfriars in London in the 1960s. For 10 points each:

[10] Identify these archeological objects. The Vikings, who used these objects to conduct their raids, were often buried in these vessels.

ANSWER: **ships** [or **boats**]

[10] Discovered in 1939, this site in Suffolk County in England contains a burial ship furnished with lavish possessions of an Anglo-Saxon king. King Raedwald may once have been buried on the ship at this archaeological site.

ANSWER: **Sutton Hoo**

[10] This bizarre device made largely of interlocking gears was found underwater in an ancient Hellenic shipwreck in the southwestern Aegean. The prevailing theory is that it was an "analog computer" for finding the relative positions of stars.

ANSWER: **Antikythera** mechanism [or **Antikythera** shipwreck] <Bentley>

7. In a painting sometimes titled for this beverage, the artist's signature is written on a knife on a table in the foreground. For 10 points each:

[10] Identify this drink which titles an Edgar Degas painting of two disheveled Parisians sitting in a café. A glass of this substance appears to the left of a man wearing a brown coat and a large top-hat in a painting by Eduard Manet.

ANSWER: **absinthe**

[10] This artist's Cubist sculpture *Glass of Absinthe* incorporated an actual silver spoon into the composition. This man painted *Les Demoiselles d'Avignon*.

ANSWER: Pablo **Picasso** [or Pablo, Diego, José, Francisco de Paula, Juan Nepomuceno, María de los Remedios, Cipriano de la Santísima Trinidad, Ruiz **Picasso**]

[10] A woman drinks a glass of absinthe in this artist's *Waiting at Grenelle*. He also painted a nightclub where a woman's green face is cut-off by the right-hand side of the canvas.

ANSWER: Henri de **Toulouse-Lautrec** [or Henri Marie Raymond de **Toulouse-Lautrec**-Monfa; that nightclub is the Moulin Rouge] <Bentley>

8. This phenomenon occurs in the resting frame in Bell's spaceship paradox, explaining why the string breaks. For 10 points each:

[10] Name this phenomenon that explains how a pole traveling near the speed of light can fit in a barn that is normally too small to completely contain it.

ANSWER: **length contraction** [or **Lorentz contraction**]

[10] Length contraction and time dilation are two consequences of this theory proposed by Albert Einstein, which rests on the assumptions of a constant speed of light and no preferred reference frame.

ANSWER: **special relativity** [or **SR**; prompt on **relativity**]

[10] With Alexander Rankine, this physicist showed that length contraction does not occur in the rest reference frame. Between 1901 and 1903, he and H.R. Noble found that Earth did not move relative to the ether.

ANSWER: Frederick Thomas **Trouton** <Silverman>

9. Many composers have used the key of E-flat for grand and noble works. For 10 points each:

[10] Beethoven stretched the boundaries of sonata form with the extensive first movement of this symphony in E-flat. It was originally dedicated to Napoleon.

ANSWER: *Symphony No. 3* [or **Eroica Symphony**]

[10] This autobiographical tone poem by Richard Strauss depicts his battles against critics and quotes from many of his earlier works such as *Till Eulenspiegel* (**OY-len-shpee-gul**).

ANSWER: *Ein Heldenleben* [or *A Hero's Life*]

[10] Modest Mussorgsky chose E-flat for this final section of *Pictures at an Exhibition*, which follows the frenetic "Baba-Yaga."

ANSWER: "The **Great Gate of Kiev**" [or **Bogatyrskie vorota - vo stol'nom gorode vo Kieve** or "The **Knight's Gate - in the Old Capital of Kiev**"] <Rosenberg>

10. For the Hebrew language, performers of this task differ in whether they use an H with a dot under it or the two-letter combination "c-h" to represent the velar sound at the start of the word 'Hanukkah.' For 10 points each:

[10] Name this linguistic task done to Japanese by the Hepburn system, which produces romaji.

ANSWER: **romanization** [or **transliteration** into the Roman alphabet; prompt on "**phonetic** transcription"]

[10] Taiwan still unofficially uses this system for romanization of Chinese words, which was replaced on the mainland by pinyin.

ANSWER: **Wade-Giles** romanization

[10] While at this university, Samuel Elmo Martin devised a method for the romanization of Korean. Othniel Marsh brought his dinosaur discoveries to this university's Peabody Museum while engaged in the "Bone Wars" against Edward Drinker Cope of Penn.

ANSWER: **Yale** University <Smart>

11. In the presence of sodium hydroxide, glucose gets oxidized, turning the solution this color, in a common classroom experiment. For 10 points each:

[10] Name this color. Litmus paper turns this color in basic solutions.

ANSWER: **blue** [or specific shades of blue]

[10] A blue sphere represents this element in CPK models. In modelling kits, this element is usually only allowed to form three bonds, since it gets a positive charge if its entire octet is used for bonding.

ANSWER: **nitrogen** [or **N**]

[10] Prussian blue pigment is composed of iron linked to several of these ions. This ion is used industrially to leach gold and silver out of the soil, and it is isoelectronic to nitrogen gas.

ANSWER: **cyanide** [or **CN-**] <Silverman>

12. This character's husband is apparently oblivious to her dalliances with General Tufto and the Marquis of Steyne, possibly in part because her flirting helps him cheat at cards. For 10 points each:

[10] Name this incredibly manipulative anti-heroine of an 1848 novel, who marries Rawdon Crawley but makes her fortune after seducing Joseph Sedley.

ANSWER: **Becky Sharp** [or **Rebecca Sharp**; accept either underlined part]

[10] Becky Sharp and Amelia Sedley are the two protagonists of this William Makepeace Thackeray novel, whose subtitle declares it to be a "novel without a hero".

ANSWER: **Vanity Fair: A Novel Without a Hero**

[10] Prior to this event, Becky taunts her rival Lady Bareacres by refusing to sell her a pair of horses, which she later sells to Joseph Sedley at a comically inflated price. George Osborne passes Becky a note asking her to run away with him at a ball held two days before this event.

ANSWER: the Battle of **Waterloo** <Carson>

13. This drink is similar to the Persian *doogh* and the Caucasian *kefir*. For 10 points each:

[10] Name this yogurt-like drink traditionally made by fermenting mare's milk in a bag of leather. It became more popular across Asia due to the Mongol conquests.

ANSWER: **kumiss** [or **koumiss**]

[10] Traditionally, a Mongol might put his kumiss bag atop one of these portable tent-like dwellings as the milk fermented. Many Mongolians still live in these structures, built out of hides supported by wood.

ANSWER: **yurts** [or **ger**; or **kibitka**; or **kibitki**]

[10] Many yurt-dwellers are affected by this ecological problem in China's region of Inner Mongolia. China has tried to plant a "Green Wall" in response to this problem.

ANSWER: **desertification** [accept any answer indicating the **growth** or expansion of the Gobi **desert**; prompt on **loss of farmland** or similar answers which don't mention deserts] <Bentley>

14. In the ancient world, Pyrrhonians were one branch of this worldview, whose adherents saw the "equipollence" of opposing arguments and achieved tranquility by choosing not to take a side. For 10 points each:

[10] Name this philosophical outlook. The "external world" type of this outlook has an extreme variant called solipsism.

ANSWER: **skepticism** [or Pyrrhonian **skepticism**; or external world **skepticism**]

[10] Skepticism became popular in this teaching facility in the Hellenistic era, decades after Plato founded it within a walled olive grove.

ANSWER: Platonic **Academy** [or **Akademeia**; or **Hekademeia**]

[10] This late Roman skeptic described two, then five, then ten "Modes" for assessing the uselessness of arguments in his *Outlines of Pyrrhonism*. He also wrote a treatise *Against the Mathematicians*.

ANSWER: **Sextus** Empiricus <Jackson>

15. These people founded the Sultanate of Rum over what had been Byzantine Anatolia. For 10 points each:

[10] Name this Turkish dynasty which branched off from the Oghuz Turks. It was a major power in the Near and Middle East from its 11th-century victory at Manzikert into the early 14th century.

ANSWER: **Seljuk** Turks [or **Seljuk** dynasty; or **Seljuk** empire]

[10] The Seljuk empire built many of these rest stops, where traders were allowed to stay for free for up to three days, along its routes. They were traditional for a much longer time span along the roadsides of Persia.

ANSWER: **caravanserais** [or **kervansaray**; or **han**; prompt on **inns**]

[10] Further away, the Rabati Malik caravanserai was built by a ruler of this city as a stop between it and Bukhara. The Gur-e-Amir mausoleum, uncovered just before the Nazi invasion of the USSR, is in this city, where a prominent observatory was built by Ulug Beg.

ANSWER: **Samarkand**, Uzbekistan <Jackson>

16. This disease is responsible for trachoma (**track-oma**) infection, which can cause blindness due to chronic inflammation and ulceration of the cornea from eyelid scarring and inturned eyelashes. For 10 points each:  
[10] Name this curable disease transmitted by the *trachomatis* species of a namesake genus. This disease, gonorrhea, and syphilis are the most common sexually-transmitted bacterial diseases in the US.

ANSWER: **Chlamydia** [or **Chlamydia trachomatis**; prompt on **C. trachomatis**]

[10] Chlamydia and gonorrhea put women at a high risk for developing this disorder, which can cause pain and infertility due to permanent damage to the uterus, ovaries, and other structures in a namesake abdominal region.

ANSWER: **pelvic inflammatory disease** [or **PID**; prompt on partial answer]

[10] The mucopurulent type of inflammation of this structure can be caused by *Chlamydia* infection. HPV infection accounts for more than 90% of cases of the cancer arising from this structure.

ANSWER: **cervix** uteri [or uterine **cervix**; or word forms, like **cervical**; prompt on **uterus**] <Smart>

17. This country's first post-independence capital, Nafplio, preserves the bullet hole in a wall where Ioannis Kapodistrias was shot. For 10 points each:

[10] Name this country. The great powers of Europe had to devise a government for it after helping rebels like Alexander Ypsilantis break it free of Ottoman rule in the 1820s.

ANSWER: **Greece** [or **Hellas**]

[10] Greece eventually installed Otto, a foreign monarch from this German region's house of Wittelsbach. Ludwig II of this region had Neuschwanstein Castle built.

ANSWER: **Bavaria** [or **Bayern**]

[10] The convention to decide a government for Greece was held in this city in 1832. The treaty ending the Greek War of Independence had been signed here five years prior.

ANSWER: **London** [or Convention of **London** of 1832] <Jackson>

18. One of this architect's buildings was derisively nicknamed "Rising Mildew." For 10 points each:

[10] Name this architect of Robie House in Hyde Park, Illinois, and Fallingwater in Bear Run, Pennsylvania.

ANSWER: Frank Lloyd **Wright**

[10] Wright was born in this state where he later built his studio Taliesin in its town of Spring Green. One of his two skyscrapers, the Johnson Wax Headquarters, is also located here, as well as the house Wingspread.

ANSWER: **Wisconsin**

[10] Modern architecture in Europe was kickstarted by the arrival of Wright's Wasmuth Portfolio in this country, whose early modernist buildings include the AEG turbine factory and the Fagus shoe factory.

ANSWER: Imperial **Germany** [or **German** Empire; or **Deutsches** Kaiserreich; or **Second Reich**; or **German Reich**] <Mehigan>

19. This author died before he could complete the tenth essay in his collection *Reveries of a Solitary Walker*. For 10 points each:

[10] Name this French author, who became one of the first literary celebrities due to readers' outpourings of emotion sparked by his philosophical novel *Julie, or the New Heloise*.

ANSWER: Jean-Jacques **Rousseau**

[10] This French Enlightenment polymath, a close friend of Rousseau, wrote *Jacques the Fatalist* and *Rameau's Nephew*. He collaborated on another project with Rousseau, Jean le Rond d'Alembert, and many other contemporaries.

ANSWER: Denis **Diderot**

[10] Diderot and d'Alembert were the two initial editors of this "rational dictionary", which ran into trouble getting published in France due to Rousseau's article on Geneva.

ANSWER: *The* **Encyclopaedia** [or **Encyclopaedia**, or *Classified Dictionary of Sciences, Arts, and Trades* or **Encyclopedie**, *Ou Dictionnaire Raisonne Des Sciences, Des Arts Et Des Metiers*] <Bentley>

20. The *akhet* season begins with this event, which coincides with the rise of Sopdet, or Sirius, and is triggered by the opening of two subterranean caverns by Khnum. For 10 points each:

[10] Name this annual meteorological event that was instrumental to ancient Egyptian agriculture.

ANSWER: **flooding** of the Nile

[10] A big-breasted male god of this name symbolizes the flooding of the Nile. Another god of this name is a son of Horus who protects the lungs and personifies the canopic jars together with his brothers Imsety, Duamutef, and Qebehseneuf (**KAY-bay-say-noo-ef**).

ANSWER: **Hapi**

[10] The canopic jar Hapi has the head of a baboon, as does this other god, whose main cult center was at Hermopolis. This god won five days of the Egyptian calendar while gambling with the moon god Khonsu.

ANSWER: **Thoth** [or **Djehuti**] <Gupta>

21. A monk tells the narrator the history of the Mazzini family in this late-18th-century author's early novel *A Sicilian Romance*. For 10 points each:

[10] Name this English writer, who responded to Matthew Lewis's novel *The Monk* with her own tale of a plotting monk named Schedoni trying to prevent Ellena's marriage to Vivaldi, called *The Italian*.

ANSWER: Ann **Radcliffe** [or Ann **Ward**]

[10] Radcliffe's novels *The Italian* and *The Mysteries of Udolpho* were pioneering examples of this genre, characterized by a faux-medieval setting and an atmosphere of horror. Horace Walpole's *The Castle of Otranto* is another early example.

ANSWER: **Gothic** novels

[10] *The Mysteries of Udolpho* is a favorite of Catherine Morland, who is recommended seven more "horrid" Gothic novels by Isabella Thorpe, in this 1818 novel by Jane Austen that satirizes Gothic literature.

ANSWER: ***Northanger Abbey*** <Jose>

22. Initial dating suggested that objects of this material found at Ban Chiang in Thailand may have been created as far back as 4420 BCE. For 10 points each:

[10] Identify this metal alloy fashioned into a variety of military weapons. According to Christian Jürgensen Thomsen's taxonomy, an age named for this metal preceded the Iron Age.

ANSWER: **bronze**

[10] These people traveled all of the way to modern-day Cornwall, England in order to obtain tin used in making bronze. These people also traded a dye made from a snail, Tyrian purple.

ANSWER: **Phoenicians**

[10] These other people emerged during the so-called Bronze Age collapse. Their namesake empire had a capital at Ecbatana and was last ruled by Astyages, the grandfather of Cyrus the Great.

ANSWER: **Medes** [or **Medians**] <Bentley>

23. The British patient Clive Wearing was rare in that he had *both* the retrograde *and* anterograde forms of this disorder at the same time, leading him to feel that he had just awakened about once every 20 seconds. For 10 points each:

[10] Give this term for the inability to form or retain memories.

ANSWER: **amnesia**

[10] Anterograde amnesia often results from a failure of this process, by which new perceptions enter short-term memory. It comes before storage and retrieval in 3-stage models of memory.

ANSWER: **encoding** [accept word forms such as **encode**; do not accept "coding"]

[10] This number range was posited as the maximum number of "chunks" of information an average person's short-term memory could encode in a highly-cited paper subtitled "Some Limits on Our Capacity for Processing Information" by George Miller.

ANSWER: the magical number **seven, plus or minus two** [accept **five to nine**; prompt on **seven**] <Jackson>