

**2015 NSC - Official Scoresheet**

Round	07	Room	
Bracket			
Reader			

Team									Team								
Player Names																	
Q#					Bonus	Steals	Ques. Total	Run. Score						Bonus	Steals	Ques. Total	Run. score
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
TB1																	
TB2																	
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
----	----	----	----	------	-------	----	----	----	----



## PACE NSC 2015 - Round 07 - Tossups

1. The Polish officer Jozef Kosacki invented a portable counter to these weapons that was first used at the Battle of El Alamein. In 1976 Christopher Ewart-Biggs, the British Ambassador to Ireland, was killed by one of these weapons. The United States, Russia and China are non-signatories to the 1997 Ottawa Treaty aiming to eliminate some of these weapons. The Belgian-based APOPO uses (\*) rats to counter these weapons in Africa. The Buffalo and the Casspir MRAPs employ a V-Hull to protect against these weapons. The special-edition comic book *Superman: Deadly Legacy* warns about their dangers in Bosnia. Naval warships called "sweepers" protect against these weapons. For 10 points, name these weapons that trigger an explosion when stepped on.

ANSWER: anti-personnel land mines [or blast mines; or fragmentation mines; or naval mines; or IED; or culvert bomb; or roadside bomb; or improvised explosive device; or unexploded ordnance; or UXO; or UXB; or UO; prompt on bomb] <Bentley>

2. According to its artist, a portrait of a man in this profession captured "the heartbroken expression of our time". A girl in a red beret holds up a doll to a man in this profession in a painting by Norman Rockwell, who also depicted a man in this profession preparing his equipment as a boy stands on a chair with his pants partially pulled down. A man in this profession rests his right elbow next to two yellow books in one of two portraits by (\*) Vincent Van Gogh. A large book is open on the right-hand side of the canvas where seven men in this profession watch the title man lecture on the sinewy arm of the central corpse. For 10 points, name this profession of Paul Gachet and Nicholaes Tulp, the latter of whom is the subject of Rembrandt's *The Anatomy Lesson*.

ANSWER: medical doctor [or surgeon or physician] <Bentley>

3. The mercuric salt of this ion is used for oxymercuration. Like borate, Tris bonds this ion in a common buffer for electrophoresis. This ion is the smallest short-chain fatty acid. This ion, which has a conjugate pKa of 4.76, is a much weaker base than ethoxide, as shown in a common classroom example of resonance stability. Cellulose esters are almost always made to this group, which is added to salicylic acid to make (\*) aspirin. Like nitrate, chlorate, and perchlorate, all salts of this anion are water-soluble. Adding vinegar to bicarbonate makes carbonic acid and this ion. This carboxylate has two carbon atoms. For 10 points, name this ion with formula  $\text{CH}_3\text{COO}^-$  minus, the conjugate base of acetic acid.

ANSWER: acetate [or acetyl group; or acetoxyl group; do not accept or prompt on "acetic acid"] <Silverman>

4. In Friedman's test, the distribution of the test statistic  $Q$  approximates this distribution. Wilks's theorem shows that this distribution approximates negative two times the natural log of the likelihood ratio for nested models. Yates's continuity correction is applied to tests that use this distribution on contingency tables. One test statistic is approximated by this distribution, calculated as the sum of the observed minus expected values (\*) squared, divided by the expected value. This distribution describes the sum of squares of a number of standard normal random variables. The only parameter of this distribution is degrees of freedom. For 10 points, name this distribution used in Pearson's "goodness of fit" test.

ANSWER: central chi-squared distribution <Kothari>

5. One thinker from this non-Greek tradition defended the immortality of the soul in *Phaedon* and was part of this tradition's enlightenment or Haskalah. Another philosopher of this religion criticized the methods, but not the conclusions, of the Kalam school in a treatise whose third book begins with an exegesis of a passage about a chariot. That book argued that the God of this religion can only be described by what he is (\*) not and attempted to reconcile Aristotelianism with this religion. The *Tractatus Theologico-Politicus* disputed this religion's claim to chosenness. *The Guide for the Perplexed* was written by a member of this religion, Maimonides. For 10 points, name this religion from which Baruch Spinoza was expelled for denying the divine origins of the Torah.

ANSWER: Judaism [or Jewish; or other word forms] <Kothari>

6. A son-in-law of this man, who has gotten corruption charges for money-laundering through the No-os institute, is former handball star Inaki Urdangarin. This man claimed to be recovering in bed from a broken hip when he was actually out with a possible mistress named Corinna zu Sayn-Wittgenstein on an elephant hunting trip. A June 2014 decision by this man led to a rise in rank for former television anchor (\*) Letizia Ortiz. In part due to youth unemployment rates at or above 50% in his country, this man, who once blurted out "Why don't you shut up?" to Hugo Chavez, decided to step aside in favor of his son, who became Felipe VI. For 10 points, name this man who undid the dictatorial system left behind by Francisco Franco during his 37 years as King of Spain.

ANSWER: King Juan Carlos I <Jackson>

7. This poem originally appeared as the poem following "Brother Square-Toes" in the collection *Rewards and Fairies*. It warns that truths can be "twisted by knaves to make a trap for fools" and suggests that one's "heart and nerve and sinew" can be made subject to "the Will which says to them: 'Hold on'". This poem, which was inspired by the exploits of Leander Starr (\*) Jameson, describes the "two imposters" of "triumph and disaster". It also encourages the addressee to "fill the unforgiving minute / with sixty seconds' worth of distance run" and to "keep your head when all about you / Are losing theirs and blaming it on you". For 10 points, name this Rudyard Kipling poem that lays out the conditions by which "you'll be a Man, my son!"

ANSWER: "If-" <Carson>

8. In a concert overture by this composer, the English horn quotes a love song from one of his operas, which later gives way to the saltarello rhythm that opened the overture. This composer's Requiem contains a "Lacrymosa" in 9/8 time and sonata form, and also calls for four offstage brass choirs at the four cardinal directions which enter in the "Tuba Mirum". This composer reworked material from his opera (\*) *Benvenuto Cellini* into the *Roman Carnival Overture*. Another of his pieces depicts an artist's opium trip and revolves around a recurring *idée fixe* symbolizing unrequited love. For 10 points, name this French composer who included "March to the Scaffold" and "Dream of a Witches' Sabbath" in his *Symphonie fantastique*.

ANSWER: Hector Berlioz <Rosenberg>

9. This man wrote a treatise on the influence of the crusades on medieval architecture after taking a bicycle trip around France. After this man refused the Order of the Bath and the DSO, a shocked King George V noted that he was left "holding the box in my hand." This man adopted the alias John Hume Ross to escape the fame of a Lowell Thomas biography. This man was commanded by Edmund Allenby in an operation in which his men crossed the treacherous (\*) Nefud (neh-FOOD) desert and laid waste to the Hejaz Railway. This man, who was raped by the Turks during a recon mission, died in a motorcycle crash. He launched an attack against Aqaba that was recounted in his memoir *Seven Pillars of Wisdom*. For 10 points, name this British leader of the Arab Revolt in World War I.

ANSWER: T. E. Lawrence [or Lawrence of Arabia; or Thomas Edward Lawrence; or Ned Lawrence; or John Hume Ross before mentioned] <Bentley>

10. The Landmarkists held that this sect maintained an unbroken line of continuity since Apostolic times. The issue of whether or not to adhere to a Calvinist soteriology divides the "General" and "Reformed" sects within this denomination. This denomination believes in soul competency, two church offices, and two ordinances: the Lord's Supper and the (\*) "believer's" form of a certain practice. The first congregation of this denomination in North America was established in Providence by Roger Williams. In 2012, Fred Luter was elected as the first African American president of the Southern Convention of this denomination, the largest Protestant group in the US. For 10 points, name this denomination that advocates performing the namesake sacrament by total immersion.

ANSWER: **Baptists** [prompt on **Protestantism**; accept word forms; accept specific types, such as Southern **Baptist** Convention] <Gupta>

11. The risk of these events in major cities was documented by the Sanborn maps. Many victims of one of these events had earlier been led by Clara Lemlich in the Uprising of the 20,000. Ignatius Donnelly's crazy book *Ragnarok* claims that one of these events was caused by Biela's Comet. In a trial over one of these events, the lawyer Max Steur tricked Kate Alterman into repeating the testimony she had memorized. Daniel (\*) "Pegleg" Sullivan may have caused one of these events which happened simultaneously with one in Peshtigo. Frances Perkins investigated claims that victims of one of these events were trapped by locked doors. For 10 points, name this type of disaster, examples of which affected the Triangle Shirtwaist factory in 1911 and Chicago in 1871.

ANSWER: **fires** [or obvious equivalents; or Triangle Shirtwaist Factory **Fire**; or Great Chicago **Fire** of 1871] <Brownstein>

12. A man vows to prevent ghosts from wandering near the blood of two freshly-slain sheep until this person answers his questions in an epic poem. In an instance of *nekylia* from Book XI of the *Odyssey*, Odysseus rebuffs his own mother Anticleia while waiting to speak to this man in the underworld. This man's mother Chariclo begs Athena to reverse her punishment of him after he saw the goddess bathing. While wandering Mount Cyllene, this man angers (\*) Hera by beating up a pair of copulating snakes, and is transformed into a woman. This man rebukes Creon for ordering Antigone to be buried alive, and he refuses to aid an investigation into the murder of Laius, because he doesn't want to reveal that Oedipus is the killer. For 10 points, name this blind Greek sage.

ANSWER: **Tiresias** <Gupta>

13. The first novel by this author to appear in English was translated by Meredith Weatherby and has a protagonist who reattaches a ship to a mooring buoy during a typhoon in order to prove his worthiness to marry the shipowner's daughter. This author of a novel about the love between Hatsue (haht-soo-eh) and Shinji also created a student at the Peers School who dies after falling in love with Satoko Ayakura, then (\*) reappears as Isao Inuma (ee-ee-nu-ma), Ying Chan, and Toru Yasunaga. This author of *The Sound of Waves* wrote about Shigekuni Honda in a four-volume sequence that includes *Runaway Horses* and *Spring Snow*. For 10 points, name this Japanese author of the *Sea of Fertility* tetralogy and *The Temple of the Golden Pavilion*, who committed *seppuku* after his nationalist coup failed.

ANSWER: Yukio **Mishima** [or Kimitake **Hiraoka**; accept either name in either order] <Jose>

14. Many of these systems improve on the setup of Army Beta, which was introduced during World War I. One method of performing this activity features a price tag-shaped blank region in the lower right of cards printed with n-by-n patterns and was designed by John C. Raven. "Progressive matrices" and the WAIS are two types of these things, whose results are often correlated with a value developed by Charles Spearman called (\*) g-factor. A increase in the results of these constructs over time, including the Wechsler varieties, is called the Flynn effect and requires these constructs to be periodically re-normed so calculations of "mental age" don't become inflated. For 10 points, name these evaluations of aptitude which often calculate a person's IQ.

ANSWER: **intelligence tests** [accept any answer indicating ways of evaluating, quantifying, testing, etc. the general **intelligence** of persons; or **IQ** tests before "IQ"] <Jackson>

15. In 1862, the Provisional Theater was founded as a stage for opera in this language. In an opera in this language, a stuttering teenager is convinced to dress up as a bear for a circus troupe, which enters in the "March of the Comedians." In another opera in this language, a prince pursuing a white doe is the love interest of the title character, who sings the "Song to the Moon" and is a (\*) water nymph similar to the Undine (**un-DEEN**). This language was used to tell the story of how Jenik (**yen-ik**) appears to accept money in exchange for the right to wed his lover, but instead ends up marrying Mařenka anyway. For 10 points, name this language which was used to write the operas *Rusalka* and *The Bartered Bride*, the latter by Bedřich Smetana.

ANSWER: **Czech** [or **čeština**] <Sy>

16. This species was infected by the PtERV1 retrovirus four million years ago, possibly causing a speciation event. Before she was moved to a namesake facility in Ellensburg, Washington, a female one of these animals was cared for by Allen and Beatrix Gardner and later by Roger Fouts. Some of these animals placed stalks of grass in termite holes to "fish" for termites, and formed (\*) troops that cannibalized rivals. One of them named Washoe was the first non-human to learn ASL, inspiring research of one of these animals with a name punning on "Noam Chomsky." These animals share the genus *Pan* with bonobos, and groups of them were studied in Gombe by the primatologist Jane Goodall. For 10 points, name these great apes more closely related to humans than gorillas.

ANSWER: **chimpanzees** [or ***Pan troglodytes***; prompt on great **apes** before it is read; prompt on **primates** before "primatologist" is read] <Smart>

17. A poem by this author calls a woman a "thin brown mouse... living all alone/In this cold house" and contrasts her with a woman who "stayed home and scraped life with a fine tooth comb." This author of "Sadie and Maud" set a poem in a "rented back room" inhabited by two women "who have lived their day" and are "Mostly Good", for whom "dinner is a casual affair". In addition to "The (\*) Bean Eaters", her works include a collection of poems about a girl growing up in Bronzeville called *Annie Allen*. Her most famous poem is about a group of pool players at "The Golden Shovel" who "lurk late," "strike straight," "jazz June," and "die soon". For 10 points, name this first African-American Pulitzer Prize winner, the poet of "We Real Cool."

ANSWER: Gwendolyn **Brooks** [or Gwendolyn Elizabeth **Brooks**] <Cheng>

18. In this modern-day country, the North Korean-trained Fifth Brigade led a four-year-long period of political terror known by a name which translates as "the early rain that washes away the chaff." This country gained its independence after its "Bush War," or Second Chimurenga, which ended with the Lancaster House Agreement. In 1987, Joseph (\*) Nkomo, an opposition leader from this country, was coerced into leaving politics after thousands of his supporters were killed in this country's Matabeleland region. The Movement for Democratic Change is the main opposition party in this country, where forced land redistribution targeting whites carried out by the ruling ZANU-PF party caused massive hyperinflation during the 2000's. For 10 points, name this African country led by Robert Mugabe.

ANSWER: **Zimbabwe** [or Republic of **Zimbabwe**] <Wang>

19. A character in this novel religiously watches the Luxembourg Gardens, hoping to see his beloved "lark", whom he calls Ursula. A boy in this novel unknowingly brings his infant brothers to live with him in a giant plaster elephant. This novel's villain is bribed to move with his daughter Azelma to America and become a slave trader. A street gang in this novel is known by the name (\*) Patron-Minette. In the first section of this book, a man is turned away from inns because of his yellow passport but is given shelter by Bishop Myriel, from whom he steals some silver. This novel's protagonist carries a body through the sewers, a deed which Thernardier eventually reveals to Marius. For 10 points, name this Victor Hugo novel about Jean Valjean.

ANSWER: *Les **Miserables*** [or *The **Dispossessed***; or *The **Miserable Ones***; or *The **Poor Ones***; or *The **Wretched Ones***; prompt on "**Les Mis**"] <Silverman>

20. A bar being dragged down a metal rail by a constant external force may have an exponential decrease in its velocity because of this law. This equation explains how skin and proximity effects create eddies that heat up metals. A commutator and a rotating solenoid are used to generate power in a common application of this equation. This law gives the magnitude of the step-up or step-down in voltage from a (\*) transformer. This law has a minus sign as a consequence of Lenz's law. It sets the electromotive force equal to the negative time derivative of the B flux through a current loop. For 10 points, name this equation giving the induced voltage from a change in magnetic field, the only one of Maxwell's equations named for an English scientist.

ANSWER: Faraday's law of induction <Silverman>

21. These people often earned funds for traveling through the credit-ticket system. The citizenship of a child of two members of this ethnicity was confirmed via the *jus soli* concept in an 1898 Supreme Court case. The Six Companies catered to people of this ethnicity, who were the subject of the Geary Act. These people were the target of the Rock Springs massacre and were initially attracted by (\*) "Gold Mountain". People of this ethnicity benefited from the Magnuson Act of 1943 which largely repealed the 1875 Page Act. Large numbers of them worked on the Central Pacific Railroad. They were taxed by California's Anti-Coolie Act. For 10 points, name these people whose entry to the United States was restricted through a namesake "Exclusion Act".  
ANSWER: Chinese-Americans [or Chinese immigrants to the United States] <Bentley>

22. A few months after this conflict, two belligerents quarreled over the sinking of the *Eilat*. Gunnar Jarring's peace mission after this war partly failed due to the "three no's" of the Khartoum Resolution. After losing this war, a leader ceded power to his vice-president Zakaria Mohieddin, but popular support drew him back to office. UN Security Council Resolution 242 dealt with the territorial exchanges in this war, which began with an attack on 25 different (\*) airfields after the Straits of Tiran were closed. In this conflict, the Sinai Peninsula and the Gaza Strip were seized from Gamal Abdel Nasser's Egypt. This war was fought six years prior to the Yom Kippur War. For 10 points, name this 1967 victory for Israel over its Arab enemies, concluded in less than a week.  
ANSWER: Six-Day War [or June War; or Third Arab-Israeli War; or 1967 Arab-Israeli War until mentioned] <Bentley>

23. Lee and Osheroff investigated a solid phase of this element using a Pomeranchuk cell. This element is the most common one used to study quantized vortices. New properties of this element were discovered by Kapitza, Allen, and Misener, all working independently. Two isotopes of this element are continuously mixed and undergo a spontaneous phase separation in a dilution refrigerator. An isotope of this element that is a (\*) boson was used by Kamerlingh-Onnes for his most famous discovery. This element is the only one to never form a solid and standard pressure. Below its lambda point, a form of this element becomes a superfluid, which has zero viscosity. For 10 points, name this element with atomic number two.  
ANSWER: superfluid 4-helium [or superfluid 4-He; or "3" in place of "4"] <Voight>

24. In this novel, a man claims to have an informant with a "blue welveteen waistcoat" named Michael Jackson. Birds with names like Hope, Joy, Ruin, and Despair are owned by Miss Flite in this novel. Near its end, former soldier George Rouncewell touchingly reunites with his mother after being wrongfully imprisoned. In this novel, an opium overdose kills a lodger at the rag and bottle shop owned by Mr. Krook, who (\*) spontaneously combusts. That lodger, Captain Hawdon, is the father of this novel's narrator with Lady Dedlock. In this novel, Richard Carston wastes away while pursuing the a case involving a man who becomes the guardian of Esther Summerson at this novel's title estate. For 10 points, name this novel about the case of *Jarndyce and Jarndyce*, by Charles Dickens.  
ANSWER: Bleak House <Yu>



## PACE NSC 2015 - Round 07 - Bonuses

1. A notorious response to this person's most famous letter stated, "I cannot but laugh ... we know better than to repeal our masculine systems." For 10 points each:

[10] Identify this political thinker who asked that those gathered in Philadelphia "remember the ladies."

ANSWER: Abigail Adams [or Abigail Smith; prompt on Adams; prompt on Smith]

[10] John Adams successfully lobbied to get Thomas Jefferson the role of writing this document, which pointedly did not include women in its proclamation that "all men are created equal."

ANSWER: The Declaration of Independence

[10] With her sister, Martha Wright, and other suffragists, this woman helped organized the Seneca Falls Convention, which put forth a Declaration of Sentiments that declared "all men and women are created equal." She was the author of "Sermon to the Medical Students" and a co-founder of Swarthmore College.

ANSWER: Lucretia Coffin Mott [or Lucretia Coffin] <Bentley>

2. This author used his own paintings to illustrate a book that draws parallels between himself and Camille Pissarro. For 10 points each:

[10] Name this poet of *Tiepolo's Hound*. He also wrote *Omeros*, an epic poem focusing on the rivalry between the fishermen Achille and Hector, as well as the experience of living in his native land of Saint Lucia.

ANSWER: Derek Walcott [or Derek Alton Walcott]

[10] Many of the major characters in *Omeros* echo characters from this Greek epic of the Trojan War. Similarly, the blind poet Seven Seas represents this poem's author Homer.

ANSWER: The Iliad

[10] This other Caribbean author described her native land of Antigua through a tourist's eyes in *In A Small Place* and fictionalized her own experience moving to the United States to work as an *au pair* in her novel *Lucy*.

ANSWER: Jamaica Kincaid [or Elaine Cynthia Potter Richardson] <Rosenberg>

3. This novel's narrator and her sister Frieda plant marigold seeds that fail to bloom, signaling the premature birth and quick death of the child created when Cholly raped his daughter Pecola Breedlove. For 10 points each:

[10] Name this 1970 novel narrated primarily by Claudia MacTeer, in which Pecola's negative self-image creates an intense desire for the title features.

ANSWER: *The Bluest Eye*

[10] *The Bluest Eye* was the first novel by this American Nobel Laureate, whose other novels include *Song of Solomon* and *Beloved*.

ANSWER: Toni Morrison [or Chloe Ardelia Wofford]

[10] *The Bluest Eye*'s prologue presents a story beginning "Here is the house. It is green and white." that focuses on Mother, Father, and these two characters. Each chapter of the novel is then prefaced by all-caps, run-together quotes from that story about these characters.

ANSWER: Dick and Jane [accept in either order; prompt on partial answer] <Carson>



4. This man is blinded by Oenopion after drunkenly assaulting his daughter Merope, though his vision is later restored by Helios. For 10 points each:

[10] Name this hunter who is killed by a scorpion sent by Gaia when he boasts that he will kill all of the animals on Earth.

ANSWER: **Orion**

[10] Another woman named Merope married this trickster, whose attempts to thwart death are punished when he is condemned to forever roll a large boulder up a hill.

ANSWER: **Sisyphus**

[10] Sisyphus's brother Salmoneus is put to death when he arrogantly imitates Zeus's thunderbolts by partaking in this activity. Myrtilus sabotages a competition featuring this activity to help Pelops win the hand of Hippodamia.

ANSWER: he rides his **chariot** [or **chariot races**; or obvious equivalents; prompt on **race**] <Kim>

5. Answer the following about the political geography of Japan, for 10 points each.

[10] Most of Japan is divided up into 43 of these administrative units, which include Fukushima in the country's east. Osaka and Kyoto are a special "urban" type of them known as *fu*.

ANSWER: **prefectures** [or **ken**]

[10] This island is administered without the prefecture system used elsewhere in Japan. The extremely long Seikan tunnel takes trains underwater to this island.

ANSWER: **Hokkaido** [or **Yezo**]

[10] This port city, the capital of Aichi prefecture, has rarely voted for Japan's majority LDP party. In the early 2010s, a baseball cap-clad mayor of this port city dominated it via a minor party called "Tax Cuts Japan." It is located between Tokyo and Kyoto.

ANSWER: **Nagoya** <Jackson>

6. This artist beat out rivals like Paolo Veronese to decorate the Sala dell'Albergo on the strength of his painting *St. Roch in Glory*. For 10 points each:

[10] Identify this Mannerist artist of *The Miracle of the Slave* who painted *The Last Supper* with the table arranged diagonally.

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

[10] Tintoretto and Veronese were both from this Italian city. Before moving to England, Canaletto painted views of this city's canals and landmarks like The Doge's Palace.

ANSWER: **Venice** [or **Venezia**]

[10] In a Tintoretto painting, this god hides under a table as the god he's cuckolding inspects his wife for evidence of an affair. In Jacques-Louis David's final completed painting, the Three Graces assist in taking away this god's stuff as he sits on a divan.

ANSWER: **Mars** [or **Ares**] <Bentley>

7. This man was angered by the emperor's plans to establish the colony of Aelia in Jerusalem. For 10 points each:

[10] Identify this Jew who led a namesake revolt against the Romans. He was killed in 135 CE while fighting at Bethar.

ANSWER: **Bar Cochba** [or **Bar Kokhba**; or **Bar Koziba**; or **Bar Kokhba**; or Simeon **bar Kochba**; or Simeon **bar Kosba**; or Simeon **bar Koseba**; or Simon **Bar Cochba**]

[10] Bar Cochba's revolt was put down by Julius Severus under orders of this Roman Emperor. Like his successor Antoninus Pius, this man ordered a namesake wall to be erected in northern Britain.

ANSWER: **Hadrian** [or **Adrian** or Caesar Traianus **Hadrianus** Augustus; or Publius Aelius **Hadrianus**]

[10] Hadrian divided this territory into three Roman provinces. This territory in present-day Romania was conquered by Trajan, which is commemorated in Trajan's Column.

ANSWER: **Dacia** <Bentley>

8. Dan Gordon's documentary *The Game of Their Lives* chronicled the travails of this country's soccer team at the 1966 World Cup. For 10 points each:

[10] Name this country whose navy seized the USS *Pueblo* in 1968.

ANSWER: **North Korea** [or **Democratic People's Republic of Korea**; or **DPRK**]

[10] North Korea's southern border is defined by this region which mostly runs along the 38th parallel. The truce village of Panmunjom is located within this region.

ANSWER: **demilitarized zone** [or **DMZ**]

[10] In 1976, US servicemen Arthur Bonifas and Mark Barrett were killed in this fashion by North Korean soldiers in the DMZ after trying to trim a poplar tree blocking their view.

ANSWER: they were beaten to death with an **axe** [or they were **axe** murdered; or they were beaten to death with a golf **club**; or killed with a **hatchet**; or **Axe Murder** Incident] <Bentley>

9. General relativity proposes that gravity is effectively the curvature of this continuum. For 10 points each:

[10] Name this four-dimensional construct that is represented in two dimensions on a Minkowski diagram. The distance between two events in it is called a namesake "interval."

ANSWER: **spacetime**

[10] Objects in this physical situation have motion that traces out the geodesics of spacetime. This situation occurs when an object is moving only under the influence of gravity.

ANSWER: **free fall** [prompt on partial answers]

[10] According to the equivalence principle, it is impossible to determine if an object is in gravitational free fall or if it is in one of these things. An elevator is usually used as the example of one of these things.

ANSWER: **noninertial reference frame** [or an **accelerating reference frame**; prompt on partial answers]

<Silverman>

10. A porphyritic igneous texture is formed instead of this texture when nearly-crystallized magma is suddenly ejected, creating a groundmass of smaller mineral crystals around phenocrysts. For 10 points each:

[10] Name this igneous texture belonging to intrusive igneous rocks, such as granite, in which crystals are visible to the naked eye. In contrast, extrusive igneous rocks tend to have an aphanitic texture.

ANSWER: **phaneritic** texture

[10] Aside from crystal size, igneous rocks can be classified into mafic or felsic based on color. Felsic rocks have a high concentration of what two most common elements in the crust? Name both.

ANSWER: **silicon** and **oxygen** [or **Si** and **O**; accept in either order]

[10] Though it is a felsic rock, this igneous rock appears dark. This igneous rock has a glassy texture and is extremely brittle.

ANSWER: **obsidian** <Voight>

11. Answer the following about the rise of the advertising industry in the first half of the 20th century, for 10 points each.

[10] Many American advertising firms arose on this north-south thoroughfare in New York City. A library named for J.P. Morgan is on this un-numbered avenue between Fifth and Park.

ANSWER: **Madison** Avenue

[10] This psychologist applied his behaviorist theories in his second career making advertisements for products such as Maxwell House coffee, after an affair with his assistant Rosalie Rayner ruined his academic career.

ANSWER: John Broadus **Watson**

[10] In the book *Dialectic of Enlightenment*, two Frankfurt School thinkers argued that Madison Avenue ads help create a "culture industry" that distracts workers from their exploitation with false needs. Name either thinker.

ANSWER: Theodor **Adorno** or Max **Horkheimer** <Jackson>

12. Ketill attempts to ruin his father and eventually turns into Guest the One-Eyed in a novel written by an author from this country. For 10 points each:

[10] Identify this country home to Gunnar Gunnarsson and the Nobel-prize winning author of *Independent People*, Halldor Laxness.

ANSWER: **Iceland** [or **Island**]

[10] Laxness's *Iceland's Bell* trilogy evokes the style of these works of medieval Icelandic literature and history. Examples of this genre include *The Story of Burnt Njal* and Snorri Sturluson's *Heimskringla*.

ANSWER: Icelandic **sagas** [or family **sagas**; or Íslendingasögur]

[10] Laxness's novel *Paradise Reclaimed* is about his experiences with this religious group. John Ferrier and his adopted daughter Lucy are taken in by a group of these people in the Sherlock Holmes novel *A Study in Scarlet*.

ANSWER: **Mormons** [or members of the Church of **Latter-Day Saints**; or **LDS**] <Bentley>

13. In MO theory, the atom with a smaller value for this quantity will have the greater coefficient in the antibonding orbitals. For 10 points each:

[10] Name this quantity which describes the polarization of chemical bonds. It is high for atoms that "attract" electrons the most, like fluorine.

ANSWER: **electronegativity**

[10] Mulliken's proposed electronegativity is the average of these two quantities. They are the amount of energy absorbed or released when an atom loses or gains an electron, respectively.

ANSWER: first **ionization energy** and first **electron affinity** [accept in either order; prompt on partial answers]

[10] The Allred-Rochow scale gives electronegativity as a function of this quantity divided by atomic radius squared. This quantity equals atomic number minus a screening constant according to Slater's rules.

ANSWER: **effective nuclear charge** [or **Z-effective**] <Silverman>

14. Three divisions of this group, nicknamed "Black Flames," "Black Feathers," and "God Will's It," were sent to fight for the Nationalists in the Spanish Civil War. For 10 points each:

[10] Name this volunteer paramilitary group, disbanded in 1943, which was divided into maniples, cohorts, and legions, just like the Roman army.

ANSWER: **Blackshirts** [or **Milizia Volontaria per la Sicurezza Nazionale**; or **MVSN**; or **camicie nere**; or **CCNN**; or **squadristi**]

[10] The Blackshirts swore fealty to this dictator, who they called Il Duce. This dictator forged the Pact of Steel with Adolf Hitler.

ANSWER: Benito **Mussolini** [or Benito Amilcare Andrea **Mussolini**]

[10] The Blackshirts carried out this 1922 insurrection that met little resistance because Victor Emmanuel III refused to approve Luigi Facta's request for a state of siege.

ANSWER: **March on Rome** [or **Marcia su Roma**] <Gupta>

15. This composer pioneered the use of polytonality and polyrhythm in works like *Variations on "America"*. For 10 points each:

[10] Name this American modernist composer who also wrote *Three Places in New England* and *The Unanswered Question*.

ANSWER: Charles **Ives** [or Charles Edward **Ives**]

[10] Each movement of this piece by Ives quotes Beethoven's Fifth Symphony. It uses a long piece of wood to make a cluster chord in its "Hawthorne" movement, and includes optional viola and flute parts.

ANSWER: **Concord Sonata** [or **Piano Sonata No. 2, Concord, Mass., 1840-1860**; or **Second Piano Sonata**]

[10] A piece by this later American composer falsely claims that his father knew Charles Ives. He wrote *Short Ride in a Fast Machine* and the 9/11 tribute *On the Transmigration of Souls*.

ANSWER: John **Adams** [or John Coolidge **Adams**] <Kothari>

16. The Savoy Conference was convened to revise this text, whose "Solemnization of Matrimony" section is the source of the wedding vows "in sickness and in health, to love and to cherish, till death us do part." For 10 points each:

[10] Name this liturgical text originally written by Thomas Cranmer during the reign of Edward VI.

ANSWER: **Book of Common Prayer** [or *The **Book of Common Prayer** and Administration of the Sacraments and other Rites and Ceremonies of the Church according to the use of the Church of England together with the Psalter or Psalms of David pointed as they are to be sung or said in churches; and the form and manner of making, ordaining, and consecrating of bishops, priests, and deacons*]

[10] *The Book of Common Prayer* is the standard prayer book for this denomination, which separated from Rome in 1534 when Henry VIII sought an annulment of his marriage to Catherine of Aragon.

ANSWER: **Anglican** Church [or **Anglicanism**; or **Church of England**]

[10] This prayer within the book contains the entreaty "from envy, hatred, and malice, and all uncharitableness, Good Lord, deliver us." This term denotes Christian prayers consisting of petitions and supplications, such as the one "of the Saints" said at the Easter Vigil.

ANSWER: **litany** [or **litaneia**] <Bentley>

17. A 1932 MoMA exhibition gave this movement its name. For 10 points each:

[10] Identify this modernist architectural style characterized by rectilinear forms, visually weightless structures, and bare planar surfaces. It was named for its simultaneous development in Europe and the United States.

ANSWER: **International** Style

[10] This architect's Villa Tugendhat and Barcelona Pavilion were displayed at the International Style exhibition. He also collaborated with Philip Johnson on the Seagram Building, and claimed "less is more."

ANSWER: Ludwig **Mies** van der Rohe [or Maria Ludwig Michael **Mies**]

[10] Emery, Roth, & Sons, Walter Gropius, and Pietro Belluschi collaborated on this much-maligned International Style skyscraper in New York City, once the world's largest commercial office space, which used to be the headquarters of an airliner.

ANSWER: **MetLife** Building [or **PanAm** Building] <Gupta>

18. Answer the following about British authors writing satirical responses to other British authors, for 10 points each.

[10] Samuel Richardson's tiresome epistolary novel *Pamela* was roundly mocked in *Shamela*, a novella by this eighteenth-century author of *Tom Jones*.

ANSWER: Henry **Fielding**

[10] Samuel Butler wrote this 1872 parody of Utopian literature, in which a man named Higgs crosses a mountain range and winds up in the title pseudo-utopia, where sick people are criminals and machines are banned.

ANSWER: **Erewhon**; or, *Over the Range*

[10] Laurence Sterne's *A Sentimental Journey Through France and Italy* is a response to a similarly-titled travelogue by this Scottish writer, who it satirizes as "Smelfungus". This man wrote picaresque novels about such characters as Peregrine Pickle and Roderick Random.

ANSWER: Tobias **Smollett** [or Tobias George **Smollett**] <Carson>

19. Henry George proposed supplanting all existing taxes with a single tax on this thing in his book *Progress and Poverty*. For 10 points each:

[10] Name this natural economic resource which underwent "enclosure" to secure its private ownership in early modern England. It can be improved to create cities or farms.

ANSWER: **land** value [prompt on near-synonyms such as **soil** or **territory**]

[10] Land is, along with labor and capital, one of these things, the inputs which determine how much output an economy can generate.

ANSWER: **factors of production**

[10] This situation, in which individuals ruin an open-access resource by overusing it to each individual's rational benefit, is usually explained with the example of cows grazing on open land. Garrett Hardin wrote a paper popularizing this four-word term.

ANSWER: **tragedy of the commons** <Jackson>

20. The cI and cro proteins determine whether this virus stays in a predominantly lysogenic or lytic state. For 10 points each:

[10] Name this model double-stranded DNA bacteriophage discovered by Esther Lederberg and frequently used as a vector for cloning recombinant DNA. It is named after a Greek letter.

ANSWER: **lambda** phage

[10] The lytic cycle can be induced in the lambda phage by exposing it to light from this region in the electromagnetic spectrum, which causes DNA damage and is blocked by sunscreens.

ANSWER: **ultraviolet** [or **UV**]

[10] DNA damage in the lambda prophage ultimately results in self-cleavage of LexA, which is this type of protein that can prevent either transcription or translation by binding to a silencer, operator, or promoter sequence on DNA or RNA.

ANSWER: **repressors** <Gupta>

21. This author's diaries were published in 2004 under the title *Windblown World* by his biographer Douglas Brinkley. For 10 points each:

[10] Name this author who included an account of the Six Gallery reading in a novel about Ray Smith, who is introduced to Zen Buddhism by Japhy Ryder. Trips he took to a cabin in Bixby Canyon inspired his novel *Big Sur*.

ANSWER: Jack **Kerouac** [or Jean-Louis Lebris de **K rouac**]

[10] In addition to the aforementioned *Dharma Bums*, Kerouac's novels include this chronicle of the travels of Sal Paradise and Dean Moriarty, who meet such characters as the William S. Burroughs stand-in Old Bull Lee.

ANSWER: **On the Road**

[10] This poet from *On the Road*, based on Allen Ginsberg, writes a poem about the "paiper-mache" Rockies titled "Denver Doldrums" and lives in a basement apartment fit for "a Russian saint".

ANSWER: **Carlo Marx** [accept either underlined portion] <Bentley>

22. The Catholic monk Nicolas Baudeau introduced the ideas of this school to the Polish-Lithuanian Commonwealth. For 10 points each:

[10] Identify this group of 18th century French thinkers who referred to themselves as *economistes* and were founded by Francois Quesnay. They claimed that nations derived their wealth solely from the bounty of their agricultural products and the value of their land.

ANSWER: **Physiocrats** [accept word forms, such as **Physiocracy**]

[10] The Physiocrat Vincent de Gournay popularized this French term, meaning "let it go," which calls for the absence of tariffs, regulations, and other governmental barriers to transactions between private parties.

ANSWER: **laissez-faire (LAY-say FAIR)**

[10] The Scottish-born Physiocrat John Law caused the economic collapse of France by buying this joint-stock company and encouraging rampant speculation in it.

ANSWER: **Mississippi** Company [or **Company** of the West; or **Company** of the Indies; or **Mississippi** Bubble] <Bentley>

23. According to the breeder's equation, the response to selection is equal to the selection strength times the narrow-sense version of this quantity. For 10 points each:

[10] Name this term that refers to the genetic component of observed differences in a trait.

ANSWER: **heritability** [or **h-squared**; accept word forms]

[10] Human trait heritability is typically estimated by studying people bearing this relationship to one another. The University of Minnesota is the site of an ongoing longitudinal study of these people, who share roughly 50% of their genetic material if they are dizygotic.

ANSWER: **twins** [prompt on **siblings**; prompt on **brothers**; prompt on **sisters**]

[10] Ronald Fisher proved that the rate of increase in this quantity is proportional to its additive genetic variance. Natural selection is often summed up as the "survival" of the people with the most of this attribute, the ability for an organism to reproduce in a given environment.

ANSWER: **fitness** [accept **fit**test and other word forms] <Kothari>