

2015 NSC - Official Scoresheet

Round	25 - ASG	Room	
Bracket			
Reader			

Team									Team								
Player Names																	
Q#					Bonus	Steals	Ques. Total	Run. Score						Bonus	Steals	Ques. Total	Run. score
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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 25 - ALL STAR GAME - Tossups

1. In reduced units, the operator for this quantity for the hydrogen atom is often expressed as one over the radius minus one half del-squared. For a particle in a box, the average value of this quantity is the integral of psi-star times the Hamiltonian of psi, and is minimized at h^2 squared over eight times the mass times the length squared. This quantity does not commute with time, in a common expression of the uncertainty principle. (*) Degeneracy occurs for two states where this quantity is the same. \hbar psi equals this quantity times psi, according to the time-independent Schrodinger equation. For 10 points, name this quantity that is quantized by Planck's constant, and which is measured in electron-volts or Joules.

ANSWER: energy [or total energy; or E; or kinetic energy; or Hamiltonian until it is read] <Silverman>

2. Handel's *Messiah* plays as paupers break into a house and recreate Da Vinci's *Last Supper* in a film by this director, in which Don Jaime plans to rape the title novice. Another film by this man opens with the *Hebrides Overture* playing over a documentary about scorpions and ends with the Duc de Blangis emerging beardless from a door in a scene inspired by *120 Days of Sodom*. In that film, a woman sucks the toes of a religious (*) statue. This director of *Viridiana* collaborated with a painter on a film in which Pierre Batcheff bicycles in a nun's habit and pulls two pianos bearing two priests and dead donkeys. That film opens with a woman's eye being sliced open with a razor. For 10 points, name this Spanish surrealist director of *L'Age d'Or* and *Un Chien Andalou*.

ANSWER: Luis Buñuel [accept Viridiana before "this director"] <Kothari>

3. In a poem often attributed to this person, a tomb containing the talking corpse of an ancient judge is unearthed during the building of a cathedral. A story about idle workers in a vineyard is told to the speaker of a poem by this author after he falls asleep and sees his deceased daughter across a river. Another poem by this man depicts hunts for deer, a boar, and a fox, whose carcasses are traded for kisses with a man who hides a green girdle he receives from the wife of (*) Bertilak. All of this poet's extant works, including *Cleanness* and *Patience*, are found in the Cotton Nero A.x. ("a"-ten) manuscript. For 10 points, name this anonymous author usually named for his poem about the title gem or for his poem in which a man enters a beheading game with a green knight.

ANSWER: the Pearl Poet [or the Gawain Poet] <Brownstein>

4. In chronic forms of this disease, the infected cells take on a "ground glass" appearance. It's not HIV-AIDS, but during the "window period" of this disease, screens will be negative for the causative agent's surface antigens, but may turn up IgM and IgG antibodies to its core antigen. This is the more common disease whose causative agent gains entry to a cell by binding to NTCP, or sodium/bile acid cotransporter. This disease is caused by an unusual, partially double-stranded DNA virus. The chronic form of this disease, for which there *is* a vaccine, can lead to (*) cirrhosis and liver cancer. For 10 points, name this form of hepatitis that infects roughly a third of the world's population.

ANSWER: hepatitis B virus [or HBV; prompt on hepatitis] <Gupta>

5. This character was the alphabetically-later of two men who disrespected another character by serving him with a golden cup upon the silver table of Cadmus. In a long poem, he is recognized as "the lion" from a prophecy while fighting with an exile from Calydon in the court of Argos. Tisiphone and Megaera persuade this man to challenge his enemy to single combat near the end of an epic by Statius. This man gave the necklace of Harmonia to Eriphyle to secure the support of her husband (*) Amphiaraus. Creon sentenced Antigone to death because she insisted upon burying this man, who raised an army commanded by men like Parthenopaeus and Tydeus to win back his throne. For 10 points, name this son of Oedipus who led the Seven Against Thebes against his brother Eteocles.

ANSWER: Polynices [or Polyneices] <Gupta>

6. This monarch was the first to mint a gold coin called the *ecu d'or*, and commissioned Vincent of Beauvais to write the encyclopedia *Speculum majus*. This king granted the appanage of Poitou to his brother, Alphonse, with whom he fought and won the Saintonge War and the Battle of Taillebourg against England. Various legends about this husband of Marguerite of Provence were told by his biographer, Jean de Joinville. This king allowed his vassal, Henry (*) III of England, to hold on to English territories in Aquitaine. This Capetian king's mother, Blanche of Castile, served as regent while he traipsed around North Africa leading the Seventh Crusade. He ultimately died in Tunisia during the Eighth Crusade. For 10 points, name this only French king to be canonized.

ANSWER: Louis IX [or Saint Louis; prompt on Louis] <Bentley>

7. During a description of this event, the epithet "loud-moaning" is bestowed upon Amphitrite. A less popular account states that this event happened at the place where Asteria threw herself into the sea, called Ortygia. Ichnaea, Dione, Themis, and Rhea witness this event, whose setting is later secured with four pillars. The goddess Eileithyia is detained on her way down from the land of the Hyperboreans in an attempt to prevent this event. This event finally occurs on (*) Delos, a floating island that is technically not connected to solid ground, after a woman wanders the world trying to find a place not forbidden by Hera's curse. The products of this event slay the children of Niobe. For 10 points, name this event in which the goddess Leto gives birth to twins.

ANSWER: the birth of Apollo and Artemis [or the birth of Artemis and Apollo; or Leto giving birth before "Leto" is mentioned; or Leto going into labor before "Leto" is mentioned] <Gupta>

8. One of the oldest religious buildings in the Americas, built in 1674 in Curacao, is now affiliated with this denomination. The *siddur* used by this denomination is known as the Kol Haneshama. This movement's sole affiliated seminary is a rabbinical college in Wyncote, Pennsylvania. In 1945, the Sabbath Prayer Book published by this denomination was publicly burned. The founder of this denomination taught Ira Eisenstein, created the (*) *bat mitzva* ceremony, and had his daughter Judith undergo the very first one. This movement, which rejects the idea of Jews as the chosen people and views Judaism as an evolving civilization, was founded in New York City in the 1920s by Mordecai Kaplan. For 10 points, name this progressive offshoot of conservative Judaism.

ANSWER: Reconstructionist Judaism [or Reconstructionism] <Gupta>

9. This man organized female supporters into the anti-war National Legion of Mothers of America. Edward Mooney rebuked this man for doubting the mental health of one of his opponents, who often sent Joseph Kennedy to this man to try to placate him. This man helped organize a political party called the National Union that put William Lemke on its presidential ticket. This Ontario native used profits from his "Golden Hour" to construct the multi-million dollar Shrine of the Little Flower at Royal Oak. This man's magazine *Social Justice* published *The (*) Protocols of the Elders of Zion* and was notoriously supportive of fascism. In 1942, this man was banned from broadcasting by the Archbishop of Detroit. For 10 points, name this radio priest and vocal opponent of FDR.

ANSWER: Father Coughlin [or Charles Edward Coughlin] <Bentley>

10. A palm tree rests in front of Adam and Eve being driven out from Eden in a version of this scene in Cortona. Two donors look in on this scene as Joseph works in his tool shop in the right panel in one altarpiece. A painting of this scene at San Marco is divided by two arches, features an angel with multi-colored wings, and, like the one in Cortona, was painted by Fra Angelico. This scene occupies the center panel of the (*) *Mérode Altarpiece* by Robert Campin, as well as the middle row of back panels of the Ghent Altarpiece. In this scene, a white lily representing purity and virginity is often carried by Gabriel, and it is often followed by the Nativity. For 10 points, name this scene where Mary receives word that she is to bear Jesus.

ANSWER: The Annunciation [or Annunciation to the Blessed Virgin Mary or Annunciation of Our Lady or Annunciation of the Lord or Annuntiatio nativitatis Christi] <Bentley>

11. After an argument about this subject, April Wheeler sleeps with Shep Campbell in Richard Yates's *Revolutionary Road*. Another character begins performing this task after adopting the identity of "Fuzzy Stone". Dewey Dell is raped by MacGowan after he gives her a faulty substance intended to be used for this purpose in *As I Lay Dying*. Jig is told this practice is "really not anything... it's all perfectly natural" in Ernest Hemingway's (*) "Hills Like White Elephants", which repeatedly alludes to it as an "operation". In *The Cider House Rules*, Homer Wells follows in the footsteps of Dr. Wilbur Larch, who performs these procedures safely using his training as an obstetrician. For 10 points, name these medical procedures, long performed in secret on pregnant women.

ANSWER: performing abortions [or illegal abortions; prompt on "miscarriages"] <Bentley>

12. Two answers required. An engagement between these two countries was preceded by troop enlistment in Operation Falcon, followed by high-altitude training in Exercise Chequerboard. An earlier war between these two states begun when one of their leaders built outposts as part of the Forward Policy. The Five Principles of Peaceful Coexistence were agreed upon by these two countries, who fought along the McMahon Line and disputed the status of (*) Sikkim as an independent country. A leader of one of these countries inspired the Naxalite insurgency group in the other. The Line of Actual Control delineates these two countries, who fought over Aksai Chin in a 1962 war that resulted from the territorial claims of Jawaharlal Nehru. For 10 points, name these two most populous countries in the world.

ANSWER: People's Republic of China and Republic of India [accept in either order; accept PRC or Zhongguo, but do not accept "Republic of China" or "Taiwan" for China; accept Bharat Ganarajya for India] <Sy>

13. The "at" symbol is exclusively used in the chemical formula of these compounds. In nanotweezers, these compounds reversibly bend inward when a voltage is applied across them. They are "doped" with potassium to make superconductors above 18 Kelvin. These molecules have mass of either 720 or 840 amus. They have two different bond lengths: those from 6-6 and 6-5 bonds. These materials dissolve in nonpolar solvents to turn bright (*) purple. These molecules can be synthesized by firing a laser at soot. When rolled into cylinders, they form single or double walls. They can hold entire metal atoms inside an icosahedral body. For 10 points, name these allotropes of carbon which forms soccer-ball shaped "buckyballs."

ANSWER: fullerenes [or buckminsterfullerenes; prompt on buckyballs; prompt on carbon nanotubes] <Silverman>

14. One of this author's title characters is a doctor who writes a manuscript entitled *All or Nothing* after being confined to an insane asylum. This author wrote a conversation between himself and his character Augusto in a novel which ends with an epilogue spoken by Augusto's dog. A novel by this author is set in a lakeside mountain village and follows a priest who continues preaching to the villagers despite having lost his faith. This author claimed "homo sum, ergo cogito" in an essay which examines the human fear of death, *The* (*) *Tragic Sense of Life*. This author's anti-realist "nivolas" include one in which Joaquin gives a speech eulogizing his hated brother, the title painter of a depiction of the Cain story. For 10 points, name this associate of the Generation of '98, the Spanish author of *Niebla* and *Abel Sanchez*.

ANSWER: Miguel de Unamuno y Jugo <Brownstein>

15. A set of works produced in this sort of place claims that "traditional" intellectuals serve the State while "organic" intellectuals arise in every social class. An account of "cultural hegemony" was put forward in the philosophical notebooks of Italian Communist Antonio Gramsci, which are referred to by their origin in this sort of place. According to a 1975 book, the creation of "docile bodies" is best exemplified by these places. A proposal for a (*) semicircular building of this type, put forth as a humanitarian reform by Jeremy Bentham, would allow one individual to observe all others and was critiqued harshly by Michel Foucault in *Discipline and Punish*. For 10 points, name these institutions exemplified by the Panopticon, which lock up people convicted of crimes.

ANSWER: prisons [or jails] <Jackson>

16. At the end of this war, thousands of prisoners were killed by being thrown into sinkholes known as *foibe*. During this war, a guerrilla force was targeted by the unsuccessful Operation Knight's Move, which paraded thousands of troops in the Raid on Drvar. At the end of this war, Draza Mihailovic was executed for leading a group of royalist guerrilla fighters known as the Chetniks. During this war, the kidnapping of Miklos Horthy's son and the (*) Gran Sasso Raid were both carried out by the German commando Otto Skorzeny. Operation Husky was the code-name for the invasion of Sicily during this war, whose Battle of Monte Cassino occurred after the Allies invaded Italy. For 10 points, name this war during which Josip Broz Tito's Partisans resisted the Axis powers.

ANSWER: World War II [or Second World War] <Wang>

17. One of these pieces is dedicated to the memory of Joseph de Marliave, and is the last piece in a suite written in honor of friends who died in World War I. Another piece in this genre opens with a trill on A followed by a descent in sixty-fourth notes to C-sharp, which then resolves back up to D. Maurice Ravel's *Le Tombeau de Couperin* closes with one of these pieces, and Girolamo Frescobaldi wrote (*) two books that paired partitas with them. Although usually written for keyboard, their name can also refer to a fanfare such as one for brass and percussion that opens Monteverdi's *L'Orfeo*. Their name comes from the Italian for "to touch." For 10 points, name this genre of virtuosic music which includes a spooky one for organ in D minor that J.S. Bach paired with a fugue.

ANSWER: toccata <Rosenberg>

18. In 2014, leaks about the TORNADO ALLEY program showed that the British agency GCHQ could use vulnerabilities in this product to control a target computer. The popularity of this brand-name product caused the market share of Lotus 1-2-3 to collapse. Errors using this product hurt the reputations of Carmen Reinhart and Kenneth Rogoff, two Harvard (*) economists who argued in favor of austerity measures. A bug in old versions of it displayed numbers close to 65,535 as the number 100,000. One can create a PivotTable for use in this program by using Visual Basic for Applications to write a namesake macro. An alternative to this program produced by Apple is called Numbers. For 10 points, name this Microsoft Office program that lets users create and edit spreadsheets.

ANSWER: Microsoft Excel [prompt on either of the underlined words in Microsoft Office Suite] <Jackson>

19. The Civilian JTF was organized to oppose this group. After the rescue of seven members of the Moulin-Fournier family from this group, France declared that its national policy is to not pay ransoms. In the aftermath of an operation carried out by this group, Naomi Mutah was briefly arrested upon meeting with a First Lady named Patience. Public awareness of this group was raised when the White House (*) tweeted a picture of Michelle Obama holding a hand-written hashtag condemning this group. This group targeted the Chibok Government Secondary School early in 2014, pressuring a reluctant Goodluck Jonathan to act. For 10 points, name this subject of the #bringbackourgirls campaign, a terrorist group led by Abubakar Shekau which opposes the government of Nigeria.

ANSWER: Boko Haram [or Jama'atu Ahlis Sunna Lidda'Awati Wal-Jihad; or Wilayat al Sudan al Gharbi] <Bentley>

20. If n is one of these numbers, the only odd numbers in the n th row of Pascal's triangle are the ones at the ends. One can tell whether a non-increasing non-negative series a_{-n} converges by looking at its values when n is one of these numbers, according to Cauchy's condensation test. The only currently known perfect numbers can each be written as a large prime times one of these numbers. The size of the power set of a finite set is a number of this type. Adding one to a (*) Mersenne prime always gives one of these numbers. They are the number of vertices of an n -dimensional hypercube, and the binary representation of these numbers have only one 1 in them. For 10 points, identify these numbers, like 16, 32, and 128, which are formed by exponentiating the smallest prime.

ANSWER: powers of two [accept similar answers like two to the n] <Schindler>

21. In *Drosophila*, the P element transposon effects the "insertional" type of this process. A population's expected heterozygosity depends on population size and the rate of this process. Two types of this process are notated using a greater than sign and an uppercase delta. This process is called "dominant negative" if the product antagonizes the (*) wild-type. Muller's ratchet explains that populations reproducing asexually experience deleterious forms of this process way more than populations reproducing sexually. Silent, missense, and nonsense forms make up the "point" type of this process, and insertions and deletions comprise the more serious "frameshift" form. For 10 points, name these permanent changes in the nucleotide sequence of an organism.

ANSWER: mutations [or mutagenesis; or insertional mutation; or silent mutation; or missense mutation; or nonsense mutation; or point mutation; or frameshift mutation; accept insertions before mentioned; accept deletions before mentioned] <Gupta>

22. This god is reduced to ashes after being gazed upon by his uncle, the planet Saturn. While blocking the path of an angry traveler, this god allows himself to be struck with an axe when he realizes that the axe belongs to his father. This god falls off of his mount when it is scared by a snake, after which he is mocked by the moon. This god is victorious in a race around the (*) world when he chooses instead to run around his parents. This brother of Kartikeya is born when his mother desires to have someone guard the door as she bathes, but is decapitated when he refuses to let his angry father through. This god rides a mouse and is considered the "remover of obstacles." For 10 points, name this son of Shiva, who bears the head of an elephant.

ANSWER: Ganesh [or Ganapati; or Vinayaka] <Kim>

23. Many members of the court of a ruler of this dynasty perished while crossing a wooden gallery from a cathedral to a palace, prompting the ruler to come up with a plan for succession called the *Ordinatio imperii*. The Latin alphabet was standardized for literate classes by a script known as this dynasty's namesake "miniscule." The Spanish Marches were set up as a buffer zone by a ruler of this dynasty who employed the historian (*) Paul the Deacon. Two rulers of this dynasty exchanged the Oaths of Strasbourg, excluding their brother Lothair. The son of the first king of this dynasty, Pepin the Short, defeated the Lombards and was crowned "Emperor of the Romans" on Christmas Day, 800. For 10 points, name this Frankish dynasty whose rulers include Charlemagne.

ANSWER: Carolingian dynasty [or Carlovingians; or Carolings; or Karlings] <Gupta>

24. Several characters in this novel are engaged in a lawsuit over a scheme in which the bones of American soldiers recovered from Lago di Pieta were used to make special charcoal. A society dedicated to a Confederate captain who clashed with the Russian Navy, Peter Pinguid, is revealed to this novel's protagonist at a bar called The Scope by Mike Fallopian. The protagonist attends a production of Richard (*) Wharfinger's play *The Courier's Tragedy* in this novel, in which a recurring muted post-horn symbol points to the existence of an underground postal service called Tryster. Its protagonist travels to San Narciso after being named executor of Pierce Inverarity's estate. For 10 points, name this postmodern tale about Oedipa Maas, the shortest novel by Thomas Pynchon.

ANSWER: *The Crying of Lot 49* <Carson>



PACE NSC 2015 - Round 25 - ALL STAR GAME - Bonuses

1. The title character of one ballet by this composer is represented by two major triads a tritone apart. For 10 points each:

[10] Name this Russian composer of *The Firebird* and *Petrushka*.

ANSWER: Igor Fyodorovich **Stravinsky**

[10] Each movement of Stravinsky's work of this type begins with a triple-stop which its dedicatee Samuel Dushkin thought was impossible. Lalo's *Symphonie Espagnole* is one of these works, and the ones by Brahms, Beethoven and Tchaikovsky are all in D major.

ANSWER: **violin concertos** [or **violin concerti**]

[10] Dushkin also premiered the orchestral version of this Maurice Ravel work on Gypsy themes, written for violin and luthéal piano.

ANSWER: **Tzigane** <Kothari>

2. In this novel, Babette's son Heinrich uses binoculars to watch a black cloud rising from a derailed train car, which released the chemical Nyodene-D to cause the "Airborne Toxic Event." For 10 points each:

[10] Name this postmodern novel by Don DeLillo, in which Murray Jay Siskind befriends Jack Gladney, a fellow professor at College-on-the-Hill whose specialty is Hitler Studies.

ANSWER: **White Noise**

[10] In *White Noise*, Babette tries to remove this specific mental state from her thoughts by taking the experimental drug Dylar.

ANSWER: **fear** of **death** [prompt on "fear," "anxiety," etc.]

[10] Don DeLillo also wrote the novel *Falling Man*, which is about this tragic event. In Jonathan Safran Foer's *Extremely Loud and Incredibly Close*, Oskar Schell's father is one of the many New Yorkers to die during it.

ANSWER: **9/11** terrorist attacks [or **September 11**th, 2001 attacks; or the 2001 **World Trade Center** attacks; or the **fall** of the **Twin Towers**; accept any answer indicating **September 11**th, 2001 and/or the destruction of all or part of the World Trade Center complex in New York City] <Jackson>

3. This value is multiplied by the rate of voltage change to give the displacement current. For 10 points each:

[10] Name this quantity measured in farads.

ANSWER: **capacitance**

[10] This value is equal to the product of R and C for an RC circuit. This value is symbolized tau and is the point at which the capacitor has reached or lost roughly 63% of its maximum charge.

ANSWER: RC **time constant**

[10] Finding the capacitance of a coaxial cable involves finding the electric field between the cable's inner and outer layers using this one of Maxwell's equations. It relates electric flux through a closed surface to charge enclosed by the surface.

ANSWER: **Gauss**'s law <Yu>

4. Answer the following about the Eight Immortals, the premiere group of mythological Taoist superheroes, for 10 points each.

[10] The hermit alchemist Zhang Guoluo owns a mule with this unusual property, also possessed by Frey's ship Skidbladnir. The mule returns to its normal state after Zhang spits water at it.

ANSWER: it can be **folded** up [or **foldable**; accept synonyms; accept **fits in his pocket**]

[10] The leader of the Eight, Lu Dongbin, experiences one of these phenomena lasting eighteen years in the time that it takes for his yellow millet to cook. In Greek mythology, Morpheus is the god of these nocturnal phenomena.

ANSWER: **dreams**

[10] An ill-tempered immortal named Li carries medicine in his gourd, and one of these objects made out of iron that never rusts or breaks, which gives him his nickname.

ANSWER: **crutch** [or **tieguai**; or Iron-**Crutch** Li; or Li **Tieguai**] <Gupta>

5. The "bench" form of these things applies not for actual crimes but for failures to pay the fines imposed by the "body" ones. For 10 points each:

[10] Identify this type of writ from the legal system, typically issued by a judge and required by the Fourth Amendment. A fake one of these orders was used by police officers in the arrest that prompted *Mapp v. Ohio*.

ANSWER: search **warrants** [or arrest **warrants**]

[10] The Fourth Amendment mandates that warrants should only be issued when this two-word condition is met. This condition is met when police have reasonable ground to assume that a crime has been committed.

ANSWER: **probable cause** [do not accept or prompt on "reasonable suspicion"]

[10] The "plain view" doctrine holds that police may seize evidence or make arrests when the officer has reasonable suspicion of criminal activity or the presence of contraband such as a weapon during this type of traffic stop, named for a 1968 Supreme Court case. "Stop and frisk" is considered a subtype of this stop.

ANSWER: **Terry** stops <Bentley>

6. The speaker describes "ten thousand eyes of Florentines" taking part in a protest march to the Pitti Palace in a poem set in this building. For 10 points each:

[10] Name this building containing an apartment whose literary inhabitants wrote *Aurora Leigh* and *Men and Women* while living in it. One of those inhabitants wrote a poem about the Italian independence movement titled for its windows.

ANSWER: **Casa Guidi** [accept "**Casa Guidi Windows**"]

[10] This married pair of poets lived in the Casa Guidi. One of them wrote *Sonnets to the Portuguese*, while the other penned "My Last Duchess".

ANSWER: Robert and Elizabeth Barrett **Browning** [or Robert **Browning** and Elizabeth **Barrett**; accept things like "the **Brownings**"]

[10] While living in the Casa Guidi, Robert Browning purchased a collection of correspondences relating to a seventeenth-century Roman murder trial involving Count Guido Franceschini, which he used as the basis for this twelve-volume narrative poem.

ANSWER: *The **Ring and the Book*** <Carson>

7. Raymond Lindeman discovered a principle concerning these diagrams in which 10% of the energy in each level is transferred to the next. For 10 points each:

[10] Name these triangular diagrams used to illustrate the amount of biomass or energy in each level of an ecosystem.

ANSWER: **trophic pyramids** [or **ecological pyramids**; prompt on **pyramid**]

[10] At the base of trophic pyramids are these organisms that, unlike consumers, are capable of making their own food through photosynthesis or chemosynthesis.

ANSWER: primary **producers** [or **autotrophs**]

[10] Ecosystems with very high turnover in primary producers, such as many aquatic ecosystems, may take on a shape described by this adjective. Such pyramids have more biomass in consumers than producers.

ANSWER: **inverted** pyramids <Kothari>

8. Answer the following about Julia Margaret Cameron, for 10 points each.

[10] Cameron produced works in this artistic medium such as the Tennyson-inspired *Vivien and Merlin*. Steve McCurry's *Afghan Girl* is in this medium, as is Joe Rosenthal's *Raising the Flag on Iwo Jima*.

ANSWER: fine-arts **photography**

[10] Cameron's contemporary critics attacked her for not using this technique in her photographs. A "deep" form of this technique was employed by Orson Wells and his cinematographer Gregg Toland in *Citizen Kane*.

ANSWER: **focus**

[10] Cameron's scenes from Tennyson took inspiration from this art movement. A member of this art movement painted Ophelia floating down the river before she drowns.

ANSWER: **Pre-Raphaelite** Brotherhood [or **PRB**; that artist is John Everett Millais] <Bentley>

9. This faction was decisively defeated at the Battle of Montaperti, where legend has it that the knight Bocca degli Abbati betrayed them by chopping off the hand of the Florentine standard bearer. For 10 points each:

[10] Name this political faction, named for the dynasty of the German dukes of Bavaria, that supported the papacy in 12th and 13th century Italian power politics.

ANSWER: **Guelphs** [or **Welfs** or **Guelfs**]

[10] The Guelph-Ghibelline rivalry spread to Italy during the reign of this Hohenstaufen Holy Roman Emperor, who was crushed at the Battle of Legnano by the Lombard League. He drowned by attempting to ford a river in full battle armor while heading toward the Third Crusade.

ANSWER: **Frederick Barbarossa** [or **Frederick I**; or **Friedrich Barbarossa**; or **Friedrich I**; prompt on **Frederick**; prompt on **Friedrich**]

[10] Perhaps the silliest episode in the Guelph-Ghibelline conflict was the theft of this mundane object from Bologna by soldiers from Modena. Two thousand men died at the ensuing Battle of Zappolino over this object.

ANSWER: an oaken **bucket** <Bentley>

10. The winning commander at this battle led a charge across the Pinarus River to break the Persian left, then turned his attention on the Greek mercenaries in the center. For 10 points each:

[10] Name this 333 BC battle fought in southern Anatolia, the first time its winning commander personally defeated the army of Darius III.

ANSWER: Battle of **Issus**

[10] This son of Philip II and king of Macedon won the Battle of Issus and conquered all the way to northern India before his thirty-third birthday.

ANSWER: **Alexander the Great** [or **Alexander III** of Macedon; prompt on **Alexander**]

[10] After the battle, Alexander was revered for his generous treatment of Sisygambis, who bore this relation to Darius.

ANSWER: she was his **mother** [accept synonyms] <Gupta>

11. He never completed his painting of the Treaty of Paris because the British delegation refused to pose. For 10 points each:

[10] Identify this American-born artist who gained fame for his paintings of contemporary events such as *The Battle of La Hogue* and *The Death of General Wolfe*.

ANSWER: Benjamin **West**

[10] In this other Benjamin West painting, a child wearing a toga-inspired outfit leans on his bow behind a mother who has strapped her young child to a papoose. The title figure of this painting wears a tri-cornered hat and opens up his arms in a gesture of peace.

ANSWER: *The **Treaty** of William **Penn** with the **Indians** at Shackamaxon* [or anything involving William **Penn** making a **treaty** with the Lenape **Indians**]

[10] This other American artist painted a portrait of West, as well as the incomplete *Athanaeum* painting of George Washington, which is now on the dollar bill.

ANSWER: Gilbert **Stuart** [or Gilbert Charles **Stuart**; or Gilbert Charles **Stewart**] <Bentley>

12. The title character of this work earned the nickname "Plain Buttons" due to his undecorated uniform, and on his deathbed makes a hand-drawn map of the United States. For 10 points each:

[10] Identify this short story by Edward Everett Hale. Its title character, Philip Nolan, gets his wish that he "may never hear of the United States again!" after being tried for his involvement in Aaron Burr's treason plot.

ANSWER: "The **Man Without a Country**"

[10] After being charged with treason, Nolan spends the rest of his life confined in one of these places. One of these things is the subject of an Oliver Wendell Holmes poem that begins "Aye tear her tattered ensign down".

ANSWER: aboard a **ship** [or a **frigate**; or a prison **ship**; or a **boat**; or a **vessel**]

[10] Nolan becomes severely depressed when he reads the line "This is my own, my native land!" from this author's poem, *The Lay of the Last Minstrel*. Another long poem by this author, *The Lady of the Lake*, contains a section on the rivalry between James Douglas and James V.

ANSWER: Sir Walter **Scott** <Bentley>

13. According to French psychoanalytic theorist Jacques Lacan, children learn to think of themselves as beings separate from the world in a "stage" named for these objects. For 10 points each:

[10] Name these objects. A hugely controversial book by Richard Rorty debunked the idea in prior philosophy that the mind serves as one of these for objects in nature without modifying anything.

ANSWER: **mirrors** [or **mirror** stage; or *Philosophy and the **Mirror** of Nature*]

[10] Rorty's *Philosophy and the Mirror of Nature* helped revive this American school of thought, which cares about the practical consequences of holding beliefs rather than absolute truth values.

ANSWER: **pragmatism** [accept word forms]

[10] This American thinker broke with pragmatism after defining truth as that which is "ultimately agreed to by all who investigate" in his essay *How to Make Our Ideas Clear*.

ANSWER: Charles Sanders **Peirce** ("**PURSE**") <Jackson>

14. Unlike processes, these things share a common virtual address space, and a program may wait for one of these things to finish executing by calling the join method. For 10 points each:

[10] Identify these constructs often used in parallel programming. A common way to pause a program in Java is to call the sleep method on one of these things.

ANSWER: **threads**

[10] Processes and threads are managed by a scheduler, which is part of this type of software that manages the interactions between the hardware and software on a computer. Examples include Windows and Linux.

ANSWER: **operating systems** [or **OSes**]

[10] One way to trigger this type of condition is to have logic that depends on the specific order of threads being fired. Not to be confused with a deadlock, this unpredictable condition can happen when two threads read and write to the same variable at the same time.

ANSWER: **race** condition [or **race** hazard] <Bentley>

15. In one of his poems, this author declared "There is weeping in my heart like the rain on the city." For 10 points each:

[10] Name this French poet of the *Saturnine Poems* who had a well-known, tumultuous affair with the author of "A Season in Hell".

ANSWER: Paul **Verlaine** [or Paul-Marie **Verlaine**]

[10] Verlaine's lover Arthur Rimbaud also wrote this poem, whose speaker claims "at times I have seen what man thought he saw". The title object runs "into the furious lashing of the tides" after its crew is killed by "redskins".

ANSWER: "The **Drunken Boat**" [or "Le **Bateau Ivre**"]

[10] This other French poet mused "I have lived in expectation of you" at the end of his love poem "The Footsteps." He also wrote "La Jeune Parque" and a poem that exclaims "The wind is rising!...we must try to live!"

ANSWER: Paul **Valéry** [or Ambroise-Paul-Toussaint-Jules **Valéry**] <Sy>

16. Answer the following about female Catholic saints, for 10 points each.

[10] St. Lucy is often depicted holding this body part on a plate, since hers were removed before her execution. In the Middle East, *nazar* charms protect against harm cast outwards by the "evil" one.

ANSWER: **eyeballs** [accept evil **eye**]

[10] Centuries before Catherine of Siena, an earlier Saint Catherine was broken on the wheel in this city after debating fifty pagans. The Coptic church is based in this city, where rioting Christians killed the pagan polymath Hypatia.

ANSWER: **Alexandria**, Egypt

[10] Legends about this woman from Hippo often feature her crying nightly for her son Augustine, with whom she had an oddly shared vision of the divine in Ostia.

ANSWER: Saint **Monica** of Hippo <Jackson>

17. The central carbon atom of an allene has this hybridization. For 10 points each:

[10] Name this hybridization which is possessed by the carbon atoms in acetylene and carbon dioxide.

ANSWER: **sp** [do not accept or prompt on "sp²" or "sp³"]

[10] sp-hybridized atoms often form this type of rigid covalent bond, which is composed of one sigma and two pi bonds. Acetylene, the simplest alkyne, forms this type of bond.

ANSWER: **triple** bond

[10] A lone pair would be placed in one of these molecular orbitals in MO theory. These orbitals lie on the mid-line in a Frost circle, and do not contribute to the bond order.

ANSWER: **non-bonding** molecular orbitals [or **NBMOs**] <Silverman>

18. Elijah ben Solomon was the namesake *gaon*, or leader, of a prominent Jewish community in this European capital city. For 10 points each:

[10] Name this city south of the Foch line, whose ownership was disputed during the 1920s. In 1991, it was the southern terminus of a massive human chain formed by citizens of three countries protesting Soviet rule.

ANSWER: **Vilnius** [or **Wilno**; or **Vilnyus**; or **Vilna**]

[10] Vilnius is the capital of this Baltic country, which once joined Poland in a commonwealth.

ANSWER: **Lithuania** [or **Lietuva**]

[10] This type of tree, grown in a grove at Dukstai in modern Lithuania, was held sacred to the ancient thunder god Perkunas in the pre-Christian Baltic. Other revered ones existed in the center of the Basque town of Guernica and outside Hartford, Connecticut.

ANSWER: **oak** trees [or **Quercus**] <Bentley>

19. Horapollo's text on this subject used allegory to explain 189 of these symbols, which could be used to spell out the names of rulers inside a surrounding oval called a cartouche. For 10 points each:

[10] Identify this writing system, falsely decoded by Giovanni Nanni in the 1490s. It was finally decoded for real by Jean-Francois Champollion using the Rosetta stone.

ANSWER: ancient Egyptian **hieroglyphics**

[10] This lowest form of Ancient Egyptian script fell below hieroglyphics and hieratic script. The early form of this script sprung up during the 26th dynasty.

ANSWER: **demotic**

[10] Inspired in part by Foucault, this scholar claimed that the French translation of hieroglyphics was part of a "discourse" in which European scholars created a body of knowledge about the East so as to gain imperial control there.

ANSWER: Edward Wadie **Said** [He makes that claim in his book *Orientalism*.] <Bentley>

20. The majority opinion in this case upheld the doctrine of separate spheres, arguing that the "two sexes differ ... in the capacity to maintain the struggle for subsistence." For 10 points each:

[10] Identify this 1908 Supreme Court case where the court ruled that a West Coast state could restrict the working hours of women.

ANSWER: **Muller v. Oregon** [or *Oregon v. Muller*]

[10] This "People's Justice" and namesake of a Massachusetts university issued his namesake brief in *Muller v. Oregon*. This man was the first Jew appointed to the Supreme Court.

ANSWER: Louis **Brandeis** [or Louis Dembitz **Brandeis**]

[10] Roscoe Pound lauded Brandeis for accomplishing "nothing less but adding a chapter to our law" by writing an influential *Harvard Law Review* article about this concept.

ANSWER: the **right to privacy** [prompt on **privacy**] <Bentley>

21. Answer the following about female mathematicians, for 10 points each:

[10] In 2014, Stanford mathematician Maryam Mirzakhani became the first woman to win this "Nobel Prize of Mathematics", given to the top mathematicians under the age of 40.

ANSWER: **Fields** Medal

[10] This German mathematician did groundbreaking work in ring theory, but you might know her better for her namesake physics theorem, which basically states that symmetries have associated conservation laws.

ANSWER: Emmy **Noether**

[10] This French mathematician worked primarily in number theory, proving Fermat's Last Theorem for small odd prime exponents. She corresponded often with Gauss.

ANSWER: Sophie **Germain** <Schindler>

22. This man was a driving force behind the Lucknow Pact, which helped unify the Indian National Congress with this man's Muslim League. For 10 points each:

[10] Name this prominent leader in the All-India Home Rule League, who resigned from the Indian National Congress because he believed that *satyagraha* would never work.

ANSWER: Muhammad Ali **Jinnah**

[10] Jinnah was a founding father of this country, whose eastern portion became Bangladesh in a civil war of the early 1970s.

ANSWER: Islamic Republic of **Pakistan** [or Islami Jumhuriyah-i **Pakistan**]

[10] In 1930, this member of the Muslim League outlined his vision for a Muslim state carved out of British India in an address at Allahabad. Earlier, he wrote the poems in *The Secrets of the Self* and "The Complaint" in Persian and Urdu, respectively.

ANSWER: Muhammad **Iqbal** <Bentley>

23. According to its creator, this word refers to a time around four o'clock in the afternoon, when one starts broiling things for dinner. For 10 points each:

[10] Give this word, which describes the time during which the "slithy toves / did gyre and gimble" in a certain poem.

ANSWER: **brillig**

[10] "Brillig" is one of the many words invented by this author for his nonsense poem "Jabberwocky", which appears in his *Through the Looking Glass*, the sequel to *Alice's Adventures in Wonderland*.

ANSWER: Lewis **Carroll** [or Charles Lutwidge **Dodgson**]

[10] The Bandersnatch and the Jubjub bird, as well as several other invented words from "Jabberwocky", reappear in this other Carroll poem, in which ten people whose occupations start with "B" seek the title animal, which may or may not be a Boojum.

ANSWER: "The **Hunting of the Snark**" <Jose>