

### ACF Fall 2013

Packet by Northmont High School (Sam Blizzard, Erin Laing, Tori Amos, and Hao Tran)

Edited by Stephen Liu, Tanay Kothari, Ankit Aggarwal, Adam Silverman, Stephen Eltinge, Lloyd Sy, John Lawrence, and Andrew Hart

1. This thinker stated that the individual influences the environment at the same time the environment influences the individual, his idea of reciprocal determinism. This man's model of participant modeling gave rise to guided mastery treatment of phobias, an outgrowth of his studies of self-efficacy. This man demonstrated his social learning theory in an experiment in which participants learned observationally. In that experiment, this man had adults yell aggressive phrases like "Sockeroo!" as they physically abused bowling-pin-shaped toys in front of children. For 10 points, name this Canadian-American psychologist who conducted the Bobo doll experiment.

ANSWER: Albert **Bandura**

2. Considering this model in an anti-de Sitter space leads to its equivalence to certain field theories in the AdS/CFT correspondence. In this model, the Nambu-Goto action governs the movement of objects, which move along surfaces known as D-branes. Many versions of this model are unified in an eleven-dimensional extension of it known as M-theory. One of the primary goals of this theory is to explain quantum gravity by unifying quantum physics with general relativity, producing a "theory of everything." For 10 points, name this theory which attempts to explain all physics via the vibration of its namesake one-dimensional objects.

ANSWER: **string** theory

3. The volunteer organization Hadassah was named for this book's title character. Minor characters in this book include Bigthan and Teresh, and it takes place in the city of Shushan. Aside from the Song of Songs, this book of the Bible is traditionally the only one not to include the word "God." When read aloud from a *megillah*, this book is often interrupted with the sound of "groggers" to drown out the name of the antagonist. Its title character gains the favor of King Ahasuerus after Vashti is dismissed. Mordechai refuses to bow down to Haman in this book, but the queen's courage saves all the Jews. For 10 points, name this book of the Bible traditionally read on Purim.

ANSWER: Book of **Esther**

4. One character created by this author invents the alphabet and employs a maid whose tasks include tending to the family's mammoth. In that play, this author included a child who changes his name from Cain to Henry. Professor Willard opens the second act of one play by this author by describing the title location, which is inhabited by Joe Crowell, Jr. and Howie Newsome. Another of his plays follows an ice age, a flood, and other events that affect the Antrobus family. George Gibbs and Emily Webb get married in his most famous play, which is narrated by the Stage Manager from Grover's Corners. For 10 points, name this playwright of *The Skin of Our Teeth* and *Our Town*.

ANSWER: Thornton Niven **Wilder**

5. One character in this film is found sitting on his lawn with a hood over his head, which he shaved because he was feeling hot. Haylie Duff's character promises her school Bonne Bell dispensers for the girls' bathrooms, and earlier the protagonist tells his classmates about how he spent his summer in Alaska hunting wolverines. After bragging that he "chats online with babes all day," Kip ends up marrying LaFawnduh in this film. In its climax, the title character dances to Jamiroquai's "Canned Heat" to support his friend's bid for class president. For 10 points, name this 2004 comedy starring Jon Heder as the title character, who wears a shirt that reads "Vote for Pedro."

ANSWER: **Napoleon Dynamite**

6. A title character of one of this author's novels takes her name from the computer game *Extinctathon*. Moira escapes from the Rachel and Leah Center in one of this author's novels. In another work, Jimmy grows up alongside a title character and ends up taking the name Snowman as he coexists with genetically modified humans. This author

of *Cat's Eye* and *Oryx and Crake* wrote a novel whose central character illicitly plays Scrabble with the Commander. Her most famous novel is narrated by Offred, whose purpose is to function as a concubine on the orders of the dystopian government of Gilead. For 10 points, name this Canadian author of *The Handmaid's Tale*.  
ANSWER: Margaret **Atwood**

7. This country's capital has an artistic district called the 798 Art Zone and an opera house which models a drop of water and is sometimes called "The Giant Egg." One artist from this country created an exhibit in which millions of sunflower seeds fill up an empty space. A radio tower in this country sits across from a district named the Bund and is recognizable for two large spheres wrapping around its central columns. A bowl-shaped stadium in this country was designed by Herzog & de Meuron and features a visible steel frame supporting a retractable roof. For 10 points, name this Asian country whose capital features a stadium called the Bird's Nest, built for the 2008 Olympics.  
ANSWER: People's Republic of **China**

8. In some cases when this operation cannot be performed, a Cauchy principal value can be assigned instead. An extension of this operation to more abstract sets of functions assigns measures to different objects before performing this operation and is named for Lebesgue. The interchange of multiple instances of this operation is governed by Fubini's theorem. The substitution and "by parts" techniques for doing this require a change of limits to this operation's definite form which, unlike the indefinite form, does not require an arbitrary additive constant. For 10 points, name this process which calculates the area under a curve, the opposite of differentiation.  
ANSWER: **integration** [or taking an **integral**]

9. The closing chapter of one novel by this man unites the stories of Hamlet, Macbeth, and King Lear through the card of the Chariot, part of a tarot deck used throughout the work by mute travelers to tell each other stories. This author also wrote a work in which Innerio makes art out of books written by people like Silas Flannery but refuses ones by Ermes Marana. That work sees the protagonist uncover a conspiracy to manufacture false novels, accompanied by his love interest Ludmilla. Another novel by this man sees Marco Polo tell Kubla Khan about the various places he has visited. For 10 points, name this Italian author of *Invisible Cities* and *If on a winter's night a traveler*.  
ANSWER: Italo **Calvino**

10. This monarch forced his father to concede Auvergne in a treaty signed at Azay. Hubert Walter administered this king's lands while he was away, and his fervent backing of Guy of Lusignan's claims led to accusations of his complicity in Conrad of Montferrat's death. While returning home from one war, this man was captured by Leopold of Austria. In one his campaigns, this man struck a truce with his primary adversary after sighting Jerusalem so that he could block Philip Augustus' designs on his Angevin holdings. That campaign saw this English king capture Acre. For 10 points, name this English king who fought Saladin during the Third Crusade, nicknamed for his valor.  
ANSWER: **Richard I** [or **Richard the Lionheart**; or **Richard Cœur de Lion**]

11. A poem by this author commands her love to "let thy mouth / Be heir to those who are now exanimate" and states that she will "answer and not wait." In a book-length poem by this author, Lady Waldemar vies for the love of Romney, who was left at the altar by Marian Erle. In another poem by this author, she performs the title action freely, purely, and "with the breath / Smiles, tears, of all my life." This author of *Aurora Leigh* included the poem "Yes, call me by my pet name!" in a collection containing forty-four fourteen-line poems. For 10 points, name this author of *Sonnets from the Portuguese*, which includes "How do I love thee? Let me count the ways."  
ANSWER: **Elizabeth Barrett Browning** [prompt on **Browning**]

12. A requirement of this result is satisfied by constructing wavefunctions with a Slater determinant. This is the cause of the repulsive short-range twelfth-power term in the Lennard-Jones potential, as well as the degeneracy

pressure that keeps white dwarfs stable. Ehrenfest posited that this result is what gives matter volume, since it prevents atoms from being placed too close together. Wavefunctions must be antisymmetric under exchange due to this principle, which only applies to fermions. It explains why two electrons in the same orbital must have opposite spin, since they cannot occupy the same state. For 10 points, name this “exclusion” principle named for an Austrian physicist.

ANSWER: **Pauli** exclusion principle [prompt on “exclusion” principle]

13. The Blum-Violette Proposal failed to prevent this country from attempting to gain independence. This country's 1990s civil war was sparked by the Islamic Salvation Front's ouster of President Chadli Benjedid. Attacks on eateries between two factions of this country's independence movement were called the Caf' Wars. Messali Hadj led one of those factions, called the MNA, which lost power to a group led by Houari Boumediene and Ahmed Ben Bella. In 1962, the FLN and the Charles de Gaulle-led French signed the Evian Accords, which gave this country its independence. For 10 points, name this north African country which separated from France in 1962.

ANSWER: People's Democratic Republic of **Algeria**

14. The “Dance of Fury” in Oliver Messaien's *Quartet for the End of Time* is subtitled “for seven” of these instruments. Cesare Bendenelli wrote the earliest known manual for playing this instrument. A D major concerto for it was written by Leopold Mozart, and Anton Weidinger was the intended player of two other concertos for it, written by Johann Nepomek Hummel and Joseph Haydn. The woodwinds respond to this instrument after it plays the title query seven times in *The Unanswered Question*. Developed from the Medieval clarion, this instrument is played by Wynton Marsalis. For 10 points, name this brass instrument related to the cornet, which has three valves.

ANSWER: **trumpet**

15. The compound opiorphin found in this substance in humans has been shown to suppress as much pain as morphine. Polytene chromosomes were discovered in fruit fly cells that normally produce this substance. An inability to produce this substance is characteristic of xerostomia, which can be caused by Sjogren's syndrome. The most important enzyme in this substance cleaves alpha 1,4-glycosidic linkages. Sialogogues increase the secretion rate of this substance, which is vital for the formation of a bolus. It is secreted from the parotid gland. For 10 points, name this substance which contains amylase to break down carbohydrates, a liquid found in your mouth.

ANSWER: **saliva** [prompt on “spit”]

16. At one battle in this state, Reverend James Caldwell used Isaac Watts hymnbooks as gun wadding, and General Knyphausen unsuccessfully tried to capture Washington's camp at Morristown. Charles Lee was court-martialed for his actions at a battle in this state. At that skirmish, Anthony Wayne and the Marquis de Lafayette commanded troops against Henry Clinton, and Molly Pitcher supplied water. In another battle which occurred in this state, Nathanael Greene and John Sullivan attacked Johan Rahl's Hessians on Christmas Day after Washington crossed the Delaware. For 10 points, name this state, home to the Battles of Monmouth and Trenton.

ANSWER: **New Jersey**

17. In the Orphic tradition, this goddess was seduced by Zeus and gave birth to Zagreus, who was later reborn as Dionysus. The swineherd Eubuleus lost his pigs when a chasm opened in the earth to make way for chariot drawn by black horses carrying this goddess. She turned Minthe into a mint plant to prevent her husband from seducing her, and her mother visited the home of Triptolemus while searching for her. This goddess was ambushed while picking flowers at Eleusis, and after eating some pomegranate seeds, she was forced to spend part of the year in the Underworld with her abductor Hades. For 10 points, name this daughter of Zeus and Demeter, the goddess of spring.

ANSWER: **Persephone** [prompt on **Kore**; do not accept “Proserpina”]

18. The youngest son of Tancred de Hauteville ruled as Count of this region, and his nephew Bohemund was a leader of the First Crusade. One city in this island used a giant mirror to burn Roman ships attacking it, and was ruled by Agathocles as well as Hiero I. The disinformation campaign Operation Mincemeat preceded an Allied invasion of this island that was codenamed Operation Husky. Alcibiades urged for a disastrous Athenian invasion of this island, whose local population massacred Charles of Anjou's officials in an event known as this island's namesake vespers. For 10 points, name this location of Syracuse and Palermo, the largest island in the Mediterranean.

ANSWER: Sicily [or Sicilia]

19. This artist depicted an enormous version of his wife standing over a green landscape in which a man plays with a child in *Bella with the White Collar*. A candelabra and a burning synagogue are seen in a painting by this artist that depicts Jesus dying on the cross. The Eiffel Tower can be seen outside a window on the right side of a self portrait of this man in which he has seven fingers. A milkmaid, a man carrying a scythe and an upside-down violinist are depicted in another of this man's paintings, which also includes a goat and green-faced man facing each other. For 10 points, name this Russian expressionist who painted *The White Crucifixion* and *I and the Village*.

ANSWER: Marc Zaharovich Chagall [or Moïse Shagal]

20. This state contains the beginner mountain-climbing destination of South Sister, one of its Three Sisters. The John Day Fossil Beds National Monument is located in this state, whose northwestern-most point contains Fort Clatsop, where a major river flows into the ocean. The eruption of Mount Mazama created a lake in this state's only national park, which includes Wizard Island. Almost 70 percent of this state's population lives in the Willamette River Valley in the shadow of its tallest peak, Mount Hood. For 10 points, name this state that contains Crater Lake, shares the lower course of the Columbia River with Washington, and is home to the cities of Salem and Portland.

ANSWER: Oregon

21. This philosopher divided knowledge into received opinion, scientific reason, and a grasp of the system of the cosmos via intuition. He described passions stemming from one's own nature as "active" and those from external causes as "passive." In one work, he posited that Ezra rather than Moses wrote the Pentateuch. This author of *On the Improvement of the Understanding* divided the characteristics of reality into substance, attribute, and mode in a book written in "geometric order," which declared that God and Nature are one, a statement of his pantheism. For 10 points, name this 17th century Dutch Jewish philosopher who wrote *Tractatus Theologico-Politicus* and *Ethics*.

ANSWER: Baruch Spinoza [or Benedict de Spinoza]

X. A character in this play compares ruling a government to piloting a ship through a storm. A sentry in this play recounts seeing the title character perform a rite involving drops of wine after a dust storm had settled, leading to the title character's arrest for breaking an edict. A death in this play is announced after it is revealed that the protagonist's lover Hamon has also committed suicide. The title character's siblings include Eteocles and Ismene, and this play is set after the events of *Oedipus at Colonus*. Creon's anger at the burial of Polynices leads him to sentence the title character in this play. For 10 points, name this Sophocles work about a daughter of Oedipus.

ANSWER: Antigone

X. The Margules activity model gives an expression for an excess in this quantity. The use of enthalpy instead of internal energy in the definition of this quantity differentiates it from a related quantity central to the canonical ensemble. For an electrochemical cell, this quantity is equal to the negative number of electrons times Faraday's constant times the electrode potential. The sign of this quantity determines whether a reaction is exergonic or endergonic. It equals zero at equilibrium, and it equals enthalpy minus entropy times temperature. For 10 points, name this thermodynamic quantity which is negative for a spontaneous reaction, symbolized by the letter G.

ANSWER: Gibbs free energy [prompt on "free energy" or "G" before mention]

X. During this event, Charles Wood instructed Lord Lieutenant Clarendon to seize all taxable assets of property owners. The Treason Felony Act penalized speaking out against the harsh measures in response to this event. Charles Trevelyan called this event “the judgment of God.” During it, Prime Minister John Russell succeeded a man whose namesake “brimstone” was Indian meal sent to aid sufferers, Robert Peel. Black Fever afflicted the victims of this event, during which so-called “coffin ships” brought many immigrants to Canada and America. For 10 points, name this event in the 1840s in which an airborne fungus destroyed most of the main staple of Ireland.

ANSWER: **Irish Potato Famine** [or **Great Irish Famine**; or **Great Potato Famine**; or *an Gorta Mór*; prompt on **Potato Famine** and **Great Famine**]

1. The title estate in this novel is owned by the intermittently Catholic Lord Marchmain. For 10 points each:

[10] Name this novel in which Charles Ryder attempts to leave a loveless marriage in order to marry Julia Flyte.

ANSWER: **Brideshead Revisited**

[10] *Brideshead Revisited* is a novel by this British author of *A Handful of Dust* and *Decline and Fall*.

ANSWER: Arthur Evelyn St. John **Vaughan**

[10] Charles befriends this son of Lord Marchmain while at Oxford. This brother of Julia becomes a raging alcoholic and spends the remainder of his life in North Africa.

ANSWER: Lord **Sebastian** Flyte

2. A prisoner initially sentenced to death for failing to salute the Commandant’s door on an hourly basis is set free in this short story. For 10 points each:

[10] Name this short story in which an officer dies while using a torture machine to carve the words “Be Just” on his body.

ANSWER: **“In the Penal Colony”**

[10] This Czech author of “In the Penal Colony” wrote a novel in which the land surveyor K. is summoned to meet Klammer, but never succeeds. That unfinished novel is *The Castle*.

ANSWER: Franz **Kafka**

[10] Kafka is best known for this novel in which Gregor Samsa awakens to find that he has been transformed into an insect, and later dies when his father throws an apple at him.

ANSWER: *The Metamorphosis*

3. He was killed in Egypt under the orders of Ptolemy XIII after he lost the Battle of Pharsalus, despite his victory at Dyrrhacium. For 10 points each:

[10] Name this member of the First Triumvirate along with Julius Caesar and Crassus.

ANSWER: Gnaeus **Pompeius** Magnus [or **Pompey** the Great]

[10] In his third namesake war, this king of Pontus on the Black Sea was defeated by Pompey. This man also developed a namesake antidote supposed to protect against all poisons.

ANSWER: **Mithridates the Great** [or **Mithridates VI**; prompt on “Mithridates”]

[10] Pompey also defeated and spared Tigranes the Great of this country following his surrender. This country is also the origin of a people who were targeted in an early 20<sup>th</sup> century ethnic cleansing by the Turks.

ANSWER: **Armenia**

4. It was convened in 1414 to solve the Three Popes Controversy and end the Western Schism. For 10 points each:

[10] Name this ecumenical council called by Emperor Sigismund that resolved the controversy by electing Pope Martin V. Jan Hus was also burned at the stake as a result of this council.

ANSWER: Council of **Constance**

[10] Jan Hus' follower Jan Zizka famously used these vehicles mounted with cannons in his wars with Sigismund. Americans traveling west on the Oregon Trail would form circles with these vehicles to defend against attacks.

ANSWER: **wagons** [accept covered **carts** or equivalents]

[10] The Council of Constance was called by the Anti-Pope of this name and number. The actual pope of this name and number called the Second Vatican Council in 1962.

ANSWER: **John XXIII**

5. This composer dedicated each part of his piano suite *Miroirs* to members of Les Apaches. For 10 points each:

[10] Name this composer who also included the difficult "Scarbo" movement in a piano suite intended to be harder to play than Balakirev's *Islamey*, *Gaspard de la Nuit*.

ANSWER: Joseph-Maurice **Ravel**

[10] This orchestral work by Ravel features a rhythmic snare drum ostinato while the flute starts the central theme, which gradually crescendos until the piece's completion. It is named after a Spanish dance genre.

ANSWER: **Bolero**

[10] Ravel memorialized his friends who had been killed in World War I with a piece entitled "Le tombeau" of this French composer, who wrote *The Art of Harpsichord Playing*.

ANSWER: **Couperin**

6. In the presence of one of these objects, an electron's energy spectrum is quantized into highly degenerate Landau levels. For 10 points each:

[10] Name this object, whose strength is measured in teslas. According to the Lorentz force law, the force exerted by one of these objects is proportional to the cross product of a particle's velocity and this object.

ANSWER: **magnetic field** [prompt on "B"]

[10] The magnetic field is equal to the curl of this quantity, symbolized with a capital A. Along with another quantity symbolized phi, this quantity can be used to rewrite the laws of electromagnetism.

ANSWER: magnetic **vector potential** [prompt on "A"]

[10] In a magnetic field, the vector potential appears in the expression for this quantum mechanical operator, which gives a system's total energy. In classical mechanics, this operator computes kinetic energy plus potential energy.

ANSWER: **Hamiltonian** [prompt on "H"]

7. This theory predicts that water has a "bent" molecular shape. For 10 points each:

[10] Name this theory that uses the number of bonding atoms and lone pairs to predict the shape and geometry of molecules.

ANSWER: **VSEPR** theory [or **V**alence **S**hell **E**lectron **P**air **R**epulsion Theory; pronounced "Vesper"]

[10] According to VSEPR theory, the ammonia molecule takes this shape. This is a modification of the tetrahedral shape taken by methane, since ammonia replaces one of the hydrogens with a lone pair.

ANSWER: **trigonal pyramidal**

[10] VSEPR Theory also predicts that all molecules with a steric number of five, including chlorine trifluoride, will have this hybridization.

ANSWER: **sp<sup>3</sup>d** [pronounced **s-p-3-d**; also accept **s<sup>1</sup>p<sup>3</sup>d<sup>1</sup>** or **s-1-p-3-d-1**]

8. This mountain range extends over 300 miles from the Cap de Creus on the Mediterranean to the Cap Higuer on the Bay of Biscay. For 10 points each:

[10] Name this mountain range on the border between Spain and France.

ANSWER: **Pyrenees**

[10] The Pyrenees contain this country co-ruled by the Bishop of Urgell and the President of France.

ANSWER: [Principality of] **Andorra** [or Principality of the **Valleys of Andorra**]

[10] This fourth-most-populous city of France, the capital of the Midi-Pyrenees region, contains the Basilica of Saint Sernin and France's second-oldest university after the Sorbonne.

ANSWER: **Toulouse**

9. Identify some prominent Jewish-American authors, for 10 points each:

[10] This author of the *Foundation Trilogy* laid out the Three Laws of Robotics in the short story collection *I, Robot*.

ANSWER: Isaac **Asimov** [or Isaak **Osimov**]

[10] This female author wrote the lines, "Give me your tired, your poor / Your huddled masses" as part of her poem "The New Colossus," which is mounted on a plaque in the Statue of Liberty.

ANSWER: Emma **Lazarus**

[10] Alaska is set aside as a territory for Jewish refugees in this author's novel *The Yiddish Policemen's Union*.

Josef and Sammy create comics in his novel *The Amazing Adventures of Kavalier & Klay*.

ANSWER: Michael **Chabon**

10. Answer some questions about particularly old economic bubbles, for 10 points each:

[10] Tulip mania occurred in this nation in the 1630's when the speculation of Amsterdam-based traders drove the price of specific tulip bulbs incredibly high, only for the prices to suddenly crash.

ANSWER: **Dutch Republic** [or Republic of the Seven United **Netherlands**; prompt on "Holland"]

[10] The English company behind this 1720 fiasco acquired exclusive rights to trade with Spanish colonies.

Parliament's subsequent passage of the Bubble Act that outlawed all non-chartered joint-stock companies.

ANSWER: **South Sea** Bubble

[10] John Law was the primary perpetrator of the company behind this scheme in French North America, which involved making fantastical claims about the Louisiana Territory as well as its namesake river valley.

ANSWER: **Mississippi** Bubble

11. Answer the following about the Passion of the Christ, for 10 points each:

[10] Joseph of Arimathea used this object to collect Jesus' blood on the cross. It was earlier used by Jesus to drink wine at the Last Supper.

ANSWER: the **Holy Grail** [or the **Holy Chalice**; or **Sangreal**]

[10] After he was whipped, Jesus was sarcastically offered this object to wear on his head by Pontius Pilate's soldiers, causing blood to run down his face.

ANSWER: **crown of thorns**

[10] According to John 19, Pilate uttered this two-word Latin phrase when presenting Jesus to a jeering Jerusalem crowd. It literally means, "Behold the man."

ANSWER: **Ecce homo**

12. Name some factors that probably influenced the 2000 presidential election, for 10 points each:

[10] This environmental activist and Green Party candidate probably siphoned votes away from Gore. He first gained national prominence for writing *Unsafe at Any Speed* and ran two other times as an independent.

ANSWER: Ralph **Nader**

[10] In the election, George W. Bush advertised himself using this two-word alliterative phrase. Tony Blair described this political ideology as, "They tell you they're not going to help you, but they're really sorry about it."

ANSWER: "**compassionate conservative**" [or **compassionate conservatism**; or other word forms]

[10] A controversial recount in the election occurred in this state, whose Secretary of State Katherine Harris ordered the recount to be stopped. Bush won this state by less than a thousand votes.

ANSWER: **Florida**

13. Ragnar Frisch coined this term, which names the field of study of 2013 Nobel laureate Lars Peter Hansen. For 10 points each:

[10] Name this term that describes the economic applications of statistics.

ANSWER: **econometrics**

[10] Many economic models are based on a linear version of this modeling technique, which creates a line of best fit given empirical data.

ANSWER: linear **regression** [accept word forms; accept **least-squares regression**]

[10] This economist, the namesake of an “island model” of the money supply, critiqued overreliance on statistical economic models because they fail to account for policy changes that could be made in light of the model itself.

ANSWER: Robert Emerson **Lucas** Jr. [accept **Lucas critique** or **Lucas island** model]

14. Answer the following about golden apples in mythology and folklore. For 10 points each:

[10] According to a Russian tale, this glowing avian creature angered the Tsar by stealing golden apples that grew from a tree in his garden. Assisted by a heroic wolf, the Tsar’s son Ivan captured this creature.

ANSWER: the **Firebird**

[10] This fleet-footed huntress from Greek mythology, famous for being the first to pierce the the Calydonian boar, was distracted during a footrace when Hippomenes dropped golden apples in her path.

ANSWER: **Atalanta**

[10] The Trojan War was started by Aphrodite offering this Trojan prince Helen’s hand in marriage under the condition that he award her Eris’ golden apple of discord. He later shot Achilles in the heel.

ANSWER: **Paris**

15. George Brett nearly accomplished this feat in 1980, and Tony Gwynn came the closest to accomplishing this in 1994, though the season was cut short due to a strike. For 10 points each:

[10] Name this single-season batting accomplishment in baseball that was last achieved by Ted Williams in 1941.

ANSWER: having a batting average of at least **.400** [accept reasonable equivalents]

[10] Tony Gwynn was probably the greatest batter in the history of this NL West team, whose ace pitcher Jake Peavy won the Cy Young Award in 2007 before being traded to the White Sox two seasons later.

ANSWER: **San Diego Padres**

[10] Peavy also achieved the pitching version of this feat in 2007 by getting the most wins, having the lowest ERA, and striking out the most batters in the NL. The batting version involves average, home runs, and RBIs.

ANSWER: **Triple Crown**

16. This artist painted himself with a cleft chin in his self-portrait. For 10 points each:

[10] Name this Regionalist painter who portrayed Washington cutting down a cherry tree in *Parson Weems’ Fable* and showed *Washington Crossing the Delaware* in the background of his *Daughters of Revolution*.

ANSWER: Grant **Wood**

[10] This painting by Wood depicts his dentist Byron McKeeby holding a pitchfork while standing next to Wood's sister Nan.

ANSWER: **American Gothic**

[10] Another Regionalist painter was Thomas Hart Benton, who used this form of painting to portray American life in many of his works, including a controversial depiction of KKK members burning a cross in one about Indiana.

ANSWER: **mural**

17. Along with Nanni di Banco, this sculptor worked on statues for the Orsanmichele, such as his depiction of St. Mark in contrapposto. For 10 points each:

[10] Name this fifteenth-century artist whose bronze statue of David was the first freestanding nude since antiquity.

ANSWER: **Donatello** [or **Donato** di Niccolò di Betto **Bardi**]



[10] Donatello's depiction of Erasmo de Narni, called *Gattamelata*, was a statue of this type. In sculpting *Gattamelata*, Donatello may have been inspired by a different one of these statues depicting Marcus Aurelius.

ANSWER: **equestrian** statues [Accept anything implying that the figure is **on a horse**.]

[10] An earlier Donatello sculpture, entitled *Zuccone*, is thought by many to be a representation of this minor Biblical prophet. This prophet was sculpted as bald, unusual for Renaissance sculptures.

ANSWER: **Habakkuk**

18. A book titled for this school of philosophy is subtitled "A New Name for Some Old Ways of Thinking." For 10 points each:

[10] Name this 19<sup>th</sup>-century school of American philosophy that asserted that ideas should be important for their practicality, and whose proponents included William James and Charles Sanders Peirce.

ANSWER: **Pragmatism**

[10] This American philosopher applied Pragmatism to his ideas for progressive schooling in *Democracy and Education* and expounded his aesthetic theories in *Art as Experience*.

ANSWER: John **Dewey**

[10] This late-20<sup>th</sup>-century Pragmatist author of *Contingency, Irony, and Solidarity* argued against the representational theory of perception in his *Philosophy and the Mirror of Nature*.

ANSWER: Richard **Rorty**

19. Hamid Rahmanian's recent illustrated version of this work ends with the death of a character who completes seven labors while accompanied by his horse, Rakhsh. For 10 points each:

[10] Name this epic poem by Ferdowsi in which Sohrab is stabbed by his father, Rostam. Later, it recounts the conquests of Alexander the Great and the Sassanids.

ANSWER: **Shahnameh** [accept **Book of Kings**]

[10] The *Shahnameh* is credited with preserving the oral traditions of this language of Iran. Sa'di and Hafez are among the most esteemed poets of this language, whose tradition flourished in their home city of Shiraz.

ANSWER: **Persian** [or **Parsi**; or **Farsi**]

[10] This Sufi Persian poet's lengthy poetic work about attaining unity with God was published in English as *The Spiritual Couplets*.

ANSWER: Jalal-ud-din **Rumi** [or Mevlana **Rumi**]

20. It can be classified into aa (AH-ah) and pahoehoe (pah-HOE-y-hoe-y) types. For 10 points each:

[10] Name this substance that is expelled from volcanoes during eruptions. It is called magma when underground, and the pillow type of this substance is usually found underwater.

ANSWER: **lava**

[10] When volcanoes erupt, they expel not only lava, but also this material made of rock fragments. It is subdivided based on particle size into bombs, lapilli, and ash, and its name comes from the Greek for "ash".

ANSWER: **tephra**

[10] Tephra often forms part of this flow of hot gas and semi-solid material that runs down a volcano during an eruption. It may reach speeds of several hundred kilometers per hour and can be extremely destructive.

ANSWER: **pyroclastic** flow

21. This order includes echidnas and platypuses. For 10 points each:

[10] Name this order of mammals whose members lay eggs and have defensive spurs on the rear ankles. They are unique among mammals for possessing a true cloaca from which they excrete wastes.

ANSWER: **monotremes** [or **monotremata**]

[10] Monotremes lack placentas, like this infraclass of mammals that give birth to undeveloped young. They are most commonly found in Australia, and they include wombats and kangaroos.

ANSWER: marsupials [or marsupialia]

[10] One characteristic that differentiates placental mammals from others is that placentals have this white matter tissue that connects and allows communication between the two hemispheres of the brain.

ANSWER: corpus callosum

X. The lives of several members of this literary era are laid out in Ernest Hemingway's *A Moveable Feast*. For 10 points each:

[10] Give this two-word phrase, used by Hemingway in an epigraph of *The Sun Always Rises* to describes a group of American expatriates that mostly settled in France around World War I.

ANSWER: Lost Generation

[10] Hemingway credited the phrase to this member of the Lost Generation, who wrote the line "a rose is a rose is a rose." This author of *Tender Buttons* wrote an "autobiography" of her life partner, Alice B. Toklas.

ANSWER: Gertrude Stein

[10] Lost Generation member John dos Passos penned the *USA Trilogy*, as well as this novel that ends with Jimmy Herf leaving the title island. He had come there by ferry at the novel's beginning and worked as a newspaperman.

ANSWER: Manhattan Transfer

X. Although it was well-planned and had a central drainage system, the lack of palaces or temples at this location has confused archaeologists. For 10 points each:

[10] Name this city in Pakistan home to the Dancing Girl statue, whose name translates to "Mound of the Dead."

ANSWER: Mohenjo-Daro

[10] Mohenjo-Daro was a city in this early civilization centered on its namesake waterway, whose other notable sites include Harappa.

ANSWER: Indus River Valley civilization

[10] Another area where early civilization flourished was this "fertile crescent" between the Tigris and Euphrates Rivers where the Babylonian and Neo-Babylonian civilizations were located.

ANSWER: Mesopotamia

X. It is produced in photosynthesis along with oxygen. For 10 points each:

[10] Name this monosaccharide with formula  $C_6H_{12}O_6$ .

ANSWER: glucose

[10] When two glucose molecules are combined with a glycosidic bond in a condensation reaction, this disaccharide is formed. It can be converted back to glucose via hydrolysis.

ANSWER: maltose

[10] The stereochemical structure of glucose was first deduced by this biochemist. He names the esterification between carboxylic acids and alcohols, as well as some "projections" used to show sugar stereochemistry.

ANSWER: Emil Fischer