

## 2019 Wayzata Academic Invitational Tournament

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### Packet 6

#### Tossups

1. In this war, tensions with the Burgundian branch of their house led the Armagnacs [ar-mahn-YAWK] to lose a battle in which Arthur de Richemont was captured. The Treaty of Arras [ar-rah] resolved those tensions in this war and forged a Franco-Burgundian alliance. The Treaty of Troyes [twah] signed during this war arranged the betrothal of (\*) Catherine of Valois; that treaty didn't prevent the coronation of Charles VII at Reims during this war, a plan carried out after the Siege of Orleans by Joan of Arc. Henry V's longbowmen turned the tide of this war at the Battle of Agincourt [ah-zhin-COOR]. For 10 points, name this lengthy war fought by England and France.

ANSWER: Hundred Years' War <BW> Ed. TH

2. A dancer from this country created a namesake technique which involves spirals and is based on "contraction and release." The fusion dance style hiplet [hip-lay], which blends hip-hop with ballet, was created in this country, which is the home of Alvin (\*) Ailey and Bob Fosse, whose signature moves involve turned in knees and jazz hands. Martha Graham choreographed a ballet that uses the Shaker hymn "Simple Gifts" called *Appalachian Spring* in this country. For 10 points, name this country where the Radio City Rockettes perform at Rockefeller Center in New York City.

ANSWER: United States of America [accept either underlined portion; accept USA] <CS> Ed. TH

3. If  $b$  is one of these numbers, then " $a$  raised to the  $b$  power" is transcendental as long as  $a$  is not zero or one according to Gelfond's theorem. Apery's constant, equal to the Riemann zeta function of three or the sum of  $n$  from one to infinity of one over  $n$  cubed, is one of these numbers. The set of these numbers is often indicated with a blackboard (\*)  $\mathbb{R} \setminus \mathbb{Q}$  [R-backward-slash-Q]. These numbers include the golden ratio and  $e$ . These numbers do not terminate and have no repeating sequences. For 10 points, name this set of numbers that cannot be expressed as a fraction of two integers, unlike rational numbers.

ANSWER: irrational numbers [accept Q before read; prompt on "real numbers"] <BW> Ed. GC

4. A tumor in this organ causes Zollinger-Ellison syndrome, which can be treated using H2 receptor antagonists and PPIs [P-P-Is]. Enterochromaffin-like [en-TAY-ro-kro-MAF-fin] cells in this organ produce histamine. Parietal cells in this organ produce intrinsic factor, which is involved in vitamin B<sub>12</sub> absorption. One end of this organ is the (\*) pyloric sphincter, which leads to the duodenum [doo-AW-den-um]. This organ uses pepsin to break down proteins. Hydrochloric acid leaves this organ, injuring the esophagus, in gastrointestinal acid reflux. For 10 points, name this organ that digests food.

ANSWER: stomach <AH> Ed. GC

5. Critics of this text argue that it was copied from an unfinished manuscript written by Solomon Spalding. The city of Zarahemla is mentioned in a section of this text named for Omni. At the beginning of this text, Lehi leads his family from Jerusalem before it falls to the Babylonians. This work tells the story of Jared and his brother crossing the ocean and the bloody conflict between the (\*) Lamanites and Nephites. This text was allegedly found on golden plates buried by Moroni. For 10 points, name this religious work central to a branch of Christianity founded by Joseph Smith.

ANSWER: The Book of Mormon: An Account Written by the Hand of Mormon upon Plates Taken from the Plates of Nephi <BW> Ed. JK

6. *The Traps of Faith* details the life of an author from this country who wrote the poem "The Dream." This country is the setting of a novel about the travels of a "whiskey priest"; that novel is Graham Greene's *The Power and The Glory*. Essays about this country's history include "The Present Day" and "The Conquest and Colonialism." Another author wrote about (\*) Ambrose Bierce's disappearance in this country in *The Old Gringo*. For 10 points, name this home country of the writers Carlos Fuentes and Octavio Paz, who wrote an essay about this country's Day of the Dead.

ANSWER: Mexico [or United Mexican States; or Estados Unidos Mexicanos] <BS> Ed. JK

7. The D minor *andante con moto* second movement of a symphony by this composer depicts a religious procession in a manner similar to the "Marche des pèlerins" [marsh duh peh-leh-rah] from a Berlioz symphony. The final movement of that symphony, this composer's Fourth, incorporates the saltarello and the tarantella. His Third Symphony was inspired by a trip that also inspired his (\*) *Hebrides* Overture. This composer of the *Scottish* and *Italian* Symphonies wrote a famous wedding march to accompany a Shakespeare play. For 10 points, name this composer of an overture and incidental music for *A Midsummer Night's Dream*.

ANSWER: Felix Mendelssohn [or Jakob Ludwig Felix Mendelssohn Bartholdy] <CS> Ed. RC

8. Every August, this city hosts a festival featuring exclusively tomato-themed art. This city contains the North American headquarters for both Bridgestone and Nissan, and its tallest building is colloquially known as the "Batman Building." Though this city is not Atlanta, its (\*) Centennial Park houses a statue of Athena within a full-scale replica of the Parthenon. The Grand Ole Opry is located in this city, which is also home to Belmont and Vanderbilt Universities. The Country Music Hall of Fame is located in, for 10 points, what city known as the "Music City" that is also the capital of Tennessee?

ANSWER: Nashville, Tennessee <BW> Ed. BS

9. Ferdinand de Lesseps was heavily fined for failing to build this structure. The Torrijos-Carter Treaties transferred sovereignty over this structure, and this structure was completed after the explosion of the Gamboa Dike flooded the Culebra Cut. This structure's construction was authorized by the Hay-Bunau-Varilla Treaty, and Walter (\*) Reed's efforts to stop the spread of yellow fever helped speed up the construction of this structure. For 10 points, name this man-made waterway that connects the Caribbean and the Pacific and runs through a namesake country.

ANSWER: Panama Canal <AK> Ed. TH

10. In a nod to a 2008 film, AC/DC's *Back in Black* is played in this film, though the protagonist thinks it's a Led Zeppelin song; that character is rescued wearing a Dutch soccer jersey in a tulip field in this film. A character played by Jacob Batalon starts dating Betty on a plane ride to (\*) Venice in this film, in which a black dahlia necklace is given to MJ. While on a school trip to Europe, the main character of this film defeats a villain played by Jake Gyllenhaal, Mysterio, using his "Peter Tingle." For 10 points, name this 2019 sequel to *Homecoming*, starring Tom Holland as Peter Parker.

ANSWER: *Spider-Man*: Far from Home [prompt on "Spider-Man"] <CS>

11. This artist painted the head of a woman on the arrow-pierced body of a deer in *The Wounded Deer*. This artist depicted "an image of passing time" and "childhood games" in a work in which a dead woodpecker and a skyscraper jutting out of a volcano (\*) float in a bathtub. This artist of *What the Water Gave Me* depicted the aftermath of the bus accident that prompted her to start painting in a self-portrait in which nails pierce her skin, titled *The Broken Column*. For 10 points, name this Mexican artist who frequently showed off her unibrow in many of her self-portraits.

ANSWER: Frida Kahlo [accept Magdalena Carmen Frida Kahlo y Calderón] <BS> Ed. TH

12. Through a mechanism called embrittlement, a gaseous form of this element causes cracks to form in metals. Wigner and Huntington theorized the existence of a metallic phase of this element, which is believed to make up most of Jupiter's interior. The Paschen [passion] and Balmer series are among the spectral series of an atom of this element. (\*) Dipole-dipole interactions between a highly electronegative element and this element produce its namesake "bonds." Combustion of a gaseous form of this element produces water. For 10 points, name this lightest and most abundant element in the universe.

ANSWER: hydrogen [accept H] <BL> Ed. GC

13. This poet describes wanting "Bessie, bop, or Bach" records for Christmas and writes that "I like to work, read, learn, and understand life" as an assignment for a class. In another poem, this writer describes a man who "slept like a rock or a man that's dead" after "droning a drowsy syncopated tune." A Lorraine (\*) Hansberry play takes its title from a poem by this man that asks if the title entity "fester[s] like a sore" or dries "up like a raisin in the sun." For 10 points, name this Harlem Renaissance poet of "Theme for English B," "The Weary Blues," and "A Dream Deferred."

ANSWER: Langston Hughes <CS> Ed. JK

14. In Sufi lore, anyone who kills the Huma type of this animal will die within 40 days. In Chinese myth, after the goddess Nüwa [new-wah] drowned, she turned into an animal of this type called Jingwei. When Apollo heard from an animal of this type that Koronis cheated on him, he turned that animal of this type black. Zeus took the form of this type of animal to seduce (\*) Leda, which is the same type of animal as Cygnus [signus]. As one of his labors, Heracles killed the "Stymphalian" type of these animals. For 10 points, name this type of animal, which include Odin's Huginn and Munnin and the phoenix.

ANSWER: birds [accept specific species, like: crow, raven, or swan] <AH> Ed. TH

15. The protagonist of this novel meets the ghost of Alexander the Great and debates philosophy with Aristotle and Descartes after facing a pirate attack. Scientists in this novel attempt to turn ice into gunpowder in the Grand Academy, where they also attempt to extract sunlight from cucumbers on the floating island of (\*) Laputa. After living with the Houyhnhnms [HWIN-ums], the title character of this novel comes to believe that humans are uncivilized "Yahoos." For 10 points, name this novel in which the title character visits Lilliput, a satirical novel by Jonathan Swift.

ANSWER: Gulliver's Travels [accept Travels into Several Remote Nations of the World. In Four Parts. By Lemuel Gulliver, First a Surgeon, and Then a Captain of Several Ships] <BL> Ed. JK

16. The structure of Heinrich Kramer's witch-hunter's manual *Malleus Maleficarum* is based on a book written by this man. This thinker stated that the "beatific vision" was the ultimate goal of existence after human death. This man referred to the Muslim philosopher Averroes as the "Commentator." This author of the (\*) *Summa contra Gentiles* outlined the characteristics of a "just war" in a work in which he proposed the "unmoved mover" as one of his five arguments for the existence of God. For 10 points, name this medieval scholastic philosopher who wrote the *Summa Theologica*.

ANSWER: Saint Thomas Aquinas [or Thomas of Aquino; prompt on "Doctor Angelicus," "Doctor Communis," or "Doctor Universalis"] <AK> Ed. GC

17. At the microscopic level, asperities are responsible for this force. While unrelated to electromagnetism, a law named after Coulomb states that the magnitude of one form of this force is independent of velocity. Amontons' laws state that this force is directly proportional to applied load but is independent of contact (\*) area. This force can be calculated by multiplying its namesake coefficient, mu, by the normal force. For 10 points, name this force that comes in static and kinetic forms and that opposes motion between two objects in contact.

ANSWER: friction [or frictional force; accept frictional parameter or coefficient of friction] <BW> Ed. GC

18. After gold was found in Lumpkin County, white settlers occupied much of this group's land. Samuel Worcester was arrested for living among these people, although his conviction was erased after this group won a victory in the Supreme Court case *Worcester v. Georgia*. Elias Boudinot edited this tribe's newspaper *Phoenix* after (\*) Sequoyah created this group's 86-letter alphabet. Although Chief John Ross refused to sign the Treaty of New Echota, Winfield Scott forcibly relocated members of this people to Oklahoma. For 10 points, name this Native American people that endured the 1830s Trail of Tears.

ANSWER: Cherokee [or Tsalagi] <BL> Ed. TH

19. The protagonist of this book labors at an electrical parts warehouse where he meets a French girl who pretends not to speak German. This book ends with the protagonist looking into a mirror and seeing a living corpse instead of himself. The violinist Juliek is trampled in this book, which was originally published as (\*) *And the World Remained Silent*. The question "Where is God?" is repeatedly posed in this book. Moishe the Beadle warns the residents of Sighet in this book, the first in a trilogy including *Dawn* and *Day*. For 10 points, name this Holocaust memoir by Elie Wiesel [el-lee wee-SEL].

ANSWER: Night [accept And the World Remained Silent before read] <BS> Ed. JK

20. During a defeat for this empire, Ameinias stopped chasing one of this empire's generals after she rammed into the ship of an ally; that general was Artemisia. Themistocles defeated this empire at a battle where this empire's ruler sat on a throne on a hill overlooking the conflict. This empire's forces lost at the Battle of (\*) Salamis after defeating Leonidas's force of 300 Spartans at the Battle of Thermopylae as part of one of its namesake wars against the Greeks. For 10 points, Xerxes the Great was a leader of what ancient empire located in modern-day Iran?

ANSWER: First Persian Empire [or Achaemenid Empire] <AK> Ed. TH

Tiebreaker: Jean Perrin provided an estimate for this quantity through his work on Brownian motion, although it was first approximated by Loschmidt, who sometimes names this quantity. Boltzmann's constant times this quantity equals the ideal gas constant. This quantity times elementary charge yields (\*) Faraday's constant. In 2019, the value of this constant was redefined to no longer be based off the number of atoms in 12 grams of carbon 12. For 10 points, identify this constant named for an Italian chemist that is equal to the number of particles in a mole, approximately 6.022 times ten to the twenty-third.

ANSWER: Avogadro's number [or Avogadro's constant; prompt on "mole"] <BW> Ed. GC

## Bonuses

1. During World War II, this man led forces to counter the royalist Chetniks and the fascist Croatian group Ustase [OO-staash-uh]. For 10 points each:

[10] Name this leader who received support from the British against the Chetniks after the Tehran Conference.

ANSWER: Josip Broz **Tito** [or Josip **Broz**]

[10] After Tito's support of Greek communists and his downing of American aircraft, this leader of the Soviet Union during World War II expelled Yugoslavia from the Cominform and sent several failed assassination attempts against Tito.

ANSWER: Joseph Vissarionovich **Stalin** [or Ioseb Besarionis dze **Jughashvili**]

[10] After the split between Tito and Stalin, Tito was the first chairman of this group, whose foundations were established at the Bandung Conference. Nations in this group did not officially support either the US or the USSR during the Cold War.

ANSWER: **Non-Aligned** Movement [or **NAM**] <BL> Ed. TH

2. This scenario was first devised by Flood and Dresher in 1950. For 10 points each:

[10] Name this situation commonly studied in game theory in which two players can both either defect or stay loyal to each other.

ANSWER: **prisoner's dilemma**

[10] In the prisoner's dilemma, this situation occurs when both players decide to defect, since no player stands to gain by changing their strategy.

ANSWER: **Nash equilibrium**

[10] In the related stag-hunt game, if both players choose to cooperate and hunt the stag, they achieve this condition, which occurs when one player cannot gain value without the other player losing value.

ANSWER: **Pareto** efficiency [or **Pareto** optimality; accept word forms] <BL> Ed. GC

3. This process can occur only if the kinetic energy of two nuclei is high enough to overcome electrostatic repulsion. For 10 points each:

[10] Name this process in which two nuclei combine to form a larger nucleus. It is contrasted with nuclear fission.

ANSWER: nuclear **fusion** [do not accept or prompt on "nuclear fission"]

[10] The proton-proton chain and this other process are the two known mechanisms that stars use to convert hydrogen into helium.

ANSWER: **CNO** cycle [or **carbon-nitrogen-oxygen** cycle]

[10] The proton-proton chain begins with the collision of two protons to form this isotope of hydrogen. Heavy water contains this isotope of hydrogen.

ANSWER: **deuterium** [prompt on "hydrogen 2," " $H_2$ ," "heavy hydrogen," or "D"] <BW> Ed. GC

4. This author wrote a story in which the Grandmother brings the cat Pitty Sing on a family road trip. For 10 points each:

[10] Name this author of "A Good Man is Hard to Find," in which a family stops at Red Sammy's bar and encounters an outlaw called the Misfit.

ANSWER: Flannery **O'Connor**

[10] The protagonist of this Flannery O'Connor short story is Hulga, who has a wooden leg and meets the salesman Manley Pointer, who turns out to be a con artist.

ANSWER: "**Good Country People**"

[10] Manley Pointer sells these objects, and owns a hollow one of these objects with whiskey and cards inside. A novel by Barbara Kingsolver is titled for a "poisonwood" one of these objects.

ANSWER: **Bible** [prompt on "book"] <BS>Ed. JK

5. This religion worships the Eight Immortals and values the “Three Treasures.” For 10 points each:

[10] The yin yang symbolizes balance between opposing forces in this religion, where practitioners follow “The Way.”

ANSWER: **Taoism** [accept **Daoism**]

[10] The *Tao Te Ching*, which advocates inaction, or *wu-wei*, is attributed to this author.

ANSWER: **Lao Tzu** [accept **Laozi**]

[10] In another Taoist text, Zhuangzi [JWONG-dzuh] wonders if he is a man dreaming about becoming this animal or if he is this animal dreaming of becoming a man.

ANSWER: **butterfly** <CS> Ed. JK

6. Before the 2017 Cleveland Browns, this team was the only team in the NFL to go 0–16. For 10 points each:

[10] Name this NFC North team currently coached by Matt Patricia that did not win a game in 2008. They are owned by Martha Ford and play their home games in Ford Field.

ANSWER: **Detroit Lions** [accept either underlined portion]

[10] The 2008 season was the second year in the NFL for this Lions wide receiver, who led the league in touchdown receptions that year.

ANSWER: Calvin **Johnson** Jr.

[10] In 2009, the Lions took this quarterback from Georgia with the first pick of the draft. In 2017, he signed a 135-million-dollar contract, making him the highest paid player in the NFL at the time.

ANSWER: Matthew **Stafford** <BW> Ed. JK

7. Gordon Parks’s photo of Ella Watson, a janitor, shows her holding a broom while standing in front of this object in a parody of *American Gothic*. For 10 points each:

[10] Name this object. An artist painted three progressively smaller images of this object superimposed on top of each other and an encaustic painting of a “white” version of this object.

ANSWER: **American flag** [accept equivalents for “American”; accept **Stars and Stripes**; accept **Old Glory**; accept the **Star-Spangled Banner**; prompt on “flag”]

[10] Those paintings, *Three Flags* and *White Flags*, were painted by this American abstract expressionist artist, who aspired to paint “things the mind already knows.”

ANSWER: Jasper **Johns**

[10] This artist’s *We, Too, Have a Job to Do* shows a Boy Scout saluting in front of an American flag. This man drew inspiration from a speech by Franklin Roosevelt to create his *Four Freedoms* series, which was published in the *Saturday Evening Post*.

ANSWER: Norman Perceval **Rockwell** <CS> Ed. TH

8. This region is home to the Yakut and Dolgan peoples. For 10 points each:

[10] Name this region crossed by a railway that passes through the cities of Perm and Omsk.

ANSWER: **Siberia**

[10] Siberia stretches east from this Russian mountain range, traditionally considered the division between Europe and Asia.

ANSWER: **Ural** Mountains [or **Urals**]

[10] A population of these people resides in Siberia. Most members of this largely Sunni Muslim ethnic group are indigenous to the steppes and the Volga region and speak a namesake Turkic language.

ANSWER: **Tatars** <BL> Ed. BS

9. This man created a fake army out of straw at the Battle of Okehazama to trick the forces of Imagawa Yoshimoto. For 10 points each:

[10] Name this man who, along with Tokugawa Ieyasu and Toyotomi Hideyoshi, is considered a unifier of Japan. He committed seppuku after Akechi Mitsuhide betrayed him.

ANSWER: **Oda** Nobunaga [prompt on "Nobunaga"]

[10] Oda was a prominent figure during this period in Japan, which ended with the 1600 Battle of Sekigahara. A Chinese era with this name was ended by the rise of the Qin [chin] Dynasty.

ANSWER: **Warring States** Period [accept **Sengoku** Jidai; accept **Zhànguó Shídài**]

[10] Oda overthrew the Ashikaga government, which was ruled by military dictators with this title. Tokugawa Ieyasu also held this title.

ANSWER: **shōguns** <AK> Ed. TH

10. Songs from this film include "Good Morning" and "Fit as a Fiddle." For 10 points each:

[10] Name this film starring Gene Kelly and Debbie Reynolds, in which Kelly performs the title action while swinging around a lamppost.

ANSWER: **Singin' in the Rain** [be lenient and accept **singing** in place of **singin'**]

[10] In *Singin' in the Rain*, Gene Kelly's character Don Lockwood stars in a film attempting to compete against this real 1927 film. It is widely considered the first movie with lip-synced speech and singing.

ANSWER: **The Jazz Singer**

[10] Kelly also starred in a film titled "An American in" this city. His character, Jerry, dances with his love interest, Lisa, along the banks of the Seine in this city in the film.

ANSWER: **Paris** [accept *An American in Paris*] <BW> Ed. JK

11. This Bengali poet renounced his British knighthood after the Amritsar massacre. For 10 points each:

[10] Name this first Asian Nobel laureate in literature. This poet authored a collection of "song offerings" called *Gitanjali* [gee-TAHN-juh-lee].

ANSWER: Rabindranath **Tagore**

[10] Tagore wrote two of these types of works, which include India's "Jana Gana Mana" and Bangladesh's "Amar Sonar Bangla." Some believe he also wrote this type of work for Sri Lanka.

ANSWER: **national anthems** [prompt on "anthems"]

[10] This poet wrote an introduction to Tagore's collection *Gitanjali* and asked, "How can we know the dancer from the dance?" in his poem "Among School Children."

ANSWER: William Butler **Yeats** <CS> Ed. JK

12. Answer the following about techniques for playing instruments, for 10 points each.

[10] Béla Bartók's name is sometimes given to an especially snappy version of this technique, in which the strings of a string instrument are plucked.

ANSWER: **pizzicato** [prompt on "pizz"]

[10] This technique involves a small, rapid variation in pitch and is used to add warmth. Vocalists perform this technique by slightly oscillating the vocal cords.

ANSWER: **vibrato**

[10] A harpist can perform this technique by sweeping the fingers across the strings. Clarinetist Ross Gorman improvised an instance of it that became the opening of George Gershwin's *Rhapsody in Blue*.

ANSWER: **glissando** <BS> Ed. RC

13. Novalis used this language to write his *Hymns to the Night*. For 10 points each:

[10] Name this language that was used to write the plays *The Weavers* and *The Rats*. Another writer used this language for the plays *The Bride of Messina* and *Don Carlos*.

ANSWER: **German** [accept **Deutsch**]

[10] This poetry collection was written in German while the poet visited Princess Marie von Thurn und Taxis. The first poem in this collection describes beauty as “nothing but the beginning of terror” and asks, “Who, if I cried out, would hear me among the angelic orders?”

ANSWER: **Duino Elegies** [or **Duineser Elegien**]

[10] This German poet of the *Duino Elegies* proclaimed, “You must change your life,” in his poem “Archaic Torso of Apollo.”

ANSWER: Rainer Maria **Rilke** <CS> Ed. JK

14. This phenomenon is sometimes referred to as mimesis if at least one of its participants is inanimate. For 10 points each:

[10] Name this ecological phenomenon in which one species resembles another.

ANSWER: **mimicry**

[10] Müllerian mimicry occurs between pairs of species that both display this sort of coloration, which acts as a warning to predators.

ANSWER: **aposematic** coloration [or **aposematism**]

[10] A common example of Müllerian mimicry is the similar coloration patterns of the viceroy and monarch species of these flying insects.

ANSWER: **butterfly** [or **butterflies**; or viceroy **butterfly**; or monarch **butterfly**; prompt on **Lepidoptera**] <BW> Ed. GC

15. This advertisement states that the stakes are “to make a world in which all of God's children can live, or to go into the dark.” For 10 points each:

[10] Name this political advertisement that shows a young girl picking petals off a flower before a nuclear bomb explodes, televised by Lyndon B. Johnson's 1964 campaign only once before being pulled off the air.

ANSWER: **Daisy** Girl Ad [or **Peace, Little Girl** Ad]

[10] Johnson used the controversial Daisy Ad to attack this man, his main opponent in the 1964 election.

ANSWER: Barry Morris **Goldwater**

[10] One month after the Daisy Ad aired, a future California governor gave this speech in favor of Goldwater on the TV show *Rendezvous with Destiny*. This speech claims that the US must go “up to man's age-old dream” or “down to the ant heap of totalitarianism.”

ANSWER: “A **Time For Choosing**” <AK> Ed. TH

16. The number of these entities is indicated by the E in AXE notation. For 10 points each:

[10] Identify these entities that, along with the number of chemical bonds, determine a molecule's geometry. The presence of two of these entities on the oxygen atom in water gives water a bent geometry.

ANSWER: **lone pairs** [or **electron pairs**; prompt on “**electrons**”]

[10] Electron pairs are represented as a pair of dots next to an atomic symbol in this scientist's namesake dot notation.

ANSWER: Gilbert N. **Lewis** [or **Lewis** dot diagrams; or **Lewis** dot notation]

[10] VSEPR theory predicts that an atom with a steric number of 4 and two lone pairs will possess this molecular geometry.

ANSWER: **bent** <AH> Ed. GC

17. A character created by this author writes, "Done because we are too menny," in his suicide note. For 10 points each:

[10] Little Father Time appears in this author's novel *Jude the Obscure*. This author's *The Return of the Native* is set in Egdon Heath, where Eustacia Vye marries Clym Yeobright.

ANSWER: Thomas **Hardy**

[10] This Hardy poem begins, "I leant upon the coppice gate." The title bird of this poem is described as "frail, gaunt, and small" and knows of "some blessed hope, whereof" "I was unaware."

ANSWER: "The **Darkling Thrush**"

[10] Hardy's poem "Hap" was written in this poetic form, composed of 14 lines in iambic pentameter. Another poem written in this form begins with the line "Shall I compare thee to a summer's day?"

ANSWER: **sonnet** [accept Shakespearean **sonnet** or Elizabethan **sonnet**] <BS> Ed. JK

18. This site is believed to have been constructed in several phases on the Salisbury Plain, and it is believed that antler tools were used. For 10 points each:

[10] Name this prehistoric rock formation in the United Kingdom.

ANSWER: **Stonehenge**

[10] Stonehenge is built from bluestone and this other kind of rock made of sandstone. It is so named because pagan beliefs were often grouped with Islamic beliefs, and the name of this type of rock is derived from a common Medieval term for Arab Muslims.

ANSWER: **sarsens** [accept **Saracens**]

[10] Stonehenge was at one point used as a cremation cemetery, as was the burial site Sutton Hoo, which featured goods and bodies buried in one of these objects in Mound 1. Vikings buried people of high rank in these large objects as a nod to the Viking lifestyle.

ANSWER: **ship-burial** [accept **boat** or **vessel** or other synonyms]

<BL> Ed. TH

19. This man's mother Ninsun deciphered a dream where this man embraces an ax as signifying that this man would get a friend. For 10 points each:

[10] Name this king of Uruk who goes on a journey to slay Humbaba, the guardian of the Cedar Forest.

ANSWER: **Gilgamesh**

[10] This friend of Gilgamesh journeys with him to the Cedar Forest. He hurls the thigh of the Bull of Heaven at Ishtar after Ishtar sends it to attack them.

ANSWER: **Enkidu**

[10] After Enkidu's death, Gilgamesh seeks Utnapishtim, who became immortal after surviving this kind of disaster. Themis instructed Pyrrha and Deucalion to throw the bones of their ancestors behind after they survived one of these events.

ANSWER: **flood** [accept **deluge**] <BS> Ed. TH

20. The Stoner criterion must be satisfied for this phenomenon to occur. For 10 points each:

[10] Name this phenomenon that results from the alignment of Weiss domains. It occurs at room temperature in cobalt and nickel.

ANSWER: **ferromagnetism** [accept word forms like **ferromagnetic** or **ferromagnets**; prompt on "**magnetism**"]

[10] Ferromagnetism is modeled by this model consisting of interacting spins on a lattice. It is extended by the Potts model and the Heisenberg model.

ANSWER: **Ising** model

[10] The Ising model in this many dimensions notably displays a phase transition. Spins in the Ising model can exist in this many states, up or down.

ANSWER: **2** [or **two-dimensional**] <BW> Ed. GC