BHSAT XX (2011): This One Doesn't Bilow, We Promise! Written by Y. Student Academic Competitions

Round 4 Tossups

1. It's not *The Cat in the Hat*, but this work has some characters named One, Two, and Three, with the Third being especially bloodthirsty. One character in this work has a job with Tellson's bank, and another character looks for mourners while armed with a pistol. That last character has a "shadow" known as "The Vengeance." One particularly important plot point involves two men looking almost identical; those men are Sydney Carton and Charles Darnay. Set during the French Revolution, this is, for 10 points, what Charles Dickens work which begins "It was the best of times, it was the worst of times"?

ANSWER: A Tale of Two Cities

2. This work's word *paracletus* is often interpreted by clergy to mean the Holy Spirit. Its central figure is described as "the one true vine" and this book, which isn't Revelation, includes Seven Signs. Originating the line "Let he who is without sin cast the first stone," many editions translate its opening sentence's word *logos* so it reads "In the beginning there was the Word." Containing no parables, it recounts the raising of Lazarus and includes the fact that "God so loved the world that he gave us his... son" in chapter 3, verse 16. For 10 points, name this final, non-Synoptic Gospel which comes after Matthew, Mark, and Luke.

ANSWER: Book of **John**

- 3. Machin-like formulas Taylor-expand the arctangent function to yield one-fourth (*) of this value. A polynomial function of it is the solution to the Basel problem. The infinite series 1 over n squared yields the square of this number divided by six, and it can be estimated using a surface divided into parallel strips by dropping Buffon's needle. This number in radians is congruent to 180 degrees. Because it's transcendental, squaring the circle is impossible. For 10 points, identify this irrational number, the ratio between a circle's circumference and diameter. ANSWER: **pi** [accept "**pi divided by four**" or equivalents before (*); if someone starts saying **3.14**159265358979232..., cut them off quickly by accepting their answer]
- 4. The Chelif River rises in this mountain range. This range is comprised of many subranges, which include the High, Tell, and Aurès Ranges, and it is located to the south and east of the Rif Mountains but north of the Great Western Erg. Its highest peak is Jebel Toubkal. Marrakech is in the foothills of this range, where people speak both Arabic and Berber languages. For 10 points, name this mountain range that runs parallel to the Mediterranean coast and passes through Morocco, Algeria, and Tunisia.

ANSWER: Atlas Mountains

- 5. A smaller copy of this painting by the artist's student, Girodet, can be found in the Toledo Museum of Art. On the right side of this painting, a child buries its head in a woman's dark shawl, while another child looks at the main figures. Next to them, a woman in white leans on the shoulder of a woman with an orange shawl, weeping. The leftmost figure has a white cape, and holds a spear behind his back. For 10 points, this is what painting by Jacques-Louis David in which the title brothers stretch out their hands towards a man holding three swords? ANSWER: *The Oath of the Horatii* [or *Le Serment des Horaces*]
- 6. The losing side at this battle fled back to their beached ships, with which they had recently raided Naxos, Karystos, and Eretria; the winners were assisted by a thousand Plataeans. According to Herodotus, the losers' campaign was a response to the Ionian revolt, and Sparta refused to help at this battle despite a request from the herald Pheidippides. At it, Miltiades and Callimachus won out over generals of Darius I. For 10 points, name this victory for the Greeks over Persia in 490 BC, after which an Athenian herald announcing the victory allegedly ran 26 miles.

ANSWER: Battle of Marathon

7. In his work *Civil War in the United States*, he sides with the North and discusses the implications of slavery. He inverts the nouns of a Pierre-Joseph Proudhon title and attacks Proudhon in his work *The Poverty of Philosophy*. While ripping into his ostensible followers with a *Critique of the Gotha Programme*, he described "abstract" and "concrete" labor for his labor theory of value. Another work of his, with four planned volumes, criticizes commodity fetishism. For 10 points, name this philosopher and political theorist behind *Das Kapital* who collaborated with Friedrich Engels on *The Communist Manifesto*.

ANSWER: Karl Marx

- 8. These bodies were considered in *Strauder v. West Virginia* and *Williams v. Florida*. Some scholars believe in their namesake power of nullification. Their creation is known as impanelment. Prior to joining this body, potential members can be investigated in a process called voir dire [vwahr DEER]. The right to them is protected in the Sixth and Seventh Amendments. They are led by foremen, and ones unable to reach the necessary threshold for a finding are known as "hung." Adult citizens can get a random "summons" to, for 10 points, what verdict-giving group of one's peers in trial court, which could consist of twelve angry men?

 ANSWER: trial jury [accept juries; do not accept "grand jury"]
- 9. The title character has a conversation with the Burgomaster of Riva while aboard a death boat in this author's *The Hunter Gracchus*. In one story by him, Red Peter is an ape who trains himself to act enough like a human to be a music hall performer. Another of his stories ends with The Officer trying to write the words "Be Just" on himself with a torture machine. Those stories are *A Report to the Academy* and *In the Penal Colony*. Josef K. never learns what crime he is accused of in one novel by this author. One of his novellas opens with Gregor Samsa waking to find he has been transformed into an insect. For 10 points, name this author of *The Trial* and *The Metamorphosis*. ANSWER: Franz Kafka
- 10. The "symmetric" type of this interaction exists only at high pressure, and acetone is an acceptor of, but never a donor to, these interactions. According to the Pauling-Corey rules, their occurrence between position n and n-plus-4 in a protein yields an alpha helix; they can also cause beta sheets. One atom involved must be highly electronegative, such as nitrogen, oxygen, or fluorine. They cause the hexagonal structure of ice to be less dense than water. For 10 points, name these intermolecular attractive forces which hold a compound close to an atom of the lightest element.

ANSWER: <u>hydrogen bond</u>s [accept <u>hydrogen dipole-dipole</u> forces/interactions]

- 11. This man initiated the failed Virgin Lands farming campaign, and sarcastically requested a machine that "puts food into the mouth and pushes it down" as part of the so-called Kitchen Debate; he protested a speech from the Philippines's delegation at the UN by banging his shoe on table. He denounced his predecessor's excesses in a "Secret Speech" and authorized Walter Ulbricht to build the Berlin Wall in 1961. For 10 points, name this Soviet executive who resolved the Cuban Missile Crisis with John F. Kennedy after succeeding Stalin. ANSWER: Nikita Sergeyevich **Khrushchev**
- 12. Sarutahiko, the husband of Uzume, guards of one of these objects in Shinto; a group of bears and monkeys led by Sugreeva aids Rama in building one of these. One of these structures guarded by Obedience, Covenant, and Justice in Zoroastrianism is Chinvat. Horatius Cocles defended the Sublician one and another is guarded by the owner of the Gjallarhorn. For 10 points, name these constructs, one famous example of which is the rainbow Bifrost, which spanned the distance between Midgard and Asgard.

ANSWER: bridges

13. At one point, this character existed in separate Red and Blue electromagnetic forms, but they merged to restore his original form after they fought the Millennium Giants. A being created by Bertron was the only being to ever slay this man. After his death, figures such as Hank Henshaw, the Eradicator, John Henry Irons, and Kon-El attempted to replace him. Mr. Mxyzptlk ("mix-yes-pit-lick") created a red substance that causes his powers to go haywire. Metallo is powered by a green version of that substance, which under a yellow sun is his greatest weakness. For 10 points, name this defender of truth, justice, and the American way and Last Son of Krypton, who works for the Daily Planet as Clark Kent.

ANSWER: <u>Superman</u> [accept "<u>Kal</u>-El"; accept "<u>Clark Kent</u>" (either name) before it is read]

- 14. One variation in this piece's slow movement features a prominent solo for the fourth horn. In another movement, the timpani are unusually tuned in octaves on the third scale degree; that is the second-movement scherzo. One passage in this work's finale uses a triangle, cymbals, and bass drum to evoke a Turkish march. The beginning of the finale refers to music from the previous three movements, after which the baritone soloist sings, "O friends, not these tones!" and the choir extols the "beautiful spark of the Gods." Featuring a text by Schiller, for 10 points, identify this piece containing the "Ode to Joy," the last complete symphony by Beethoven.

 ANSWER: **Beethoven**'s Symphony no. **9** in D minor [no need for Beethoven after mentioned; accept "**Choral**" Symphony]
- 15. This playwright portrayed a hardworking, sharp, and earnest car mechanic who finds that all of his life's obstacles are overcome due to almost supernatural good fortune. That man was David Beaves, featured in his debut play *The Man Who Had All the Luck*. A manager of an aircraft factory who killed 21 pilots by authorizing the shipment of defective airplane cylinder heads during World War II, Joe Keller, experiences a tragic fall in a later play by this playwright, *All My Sons*. Known also for creating such characters as Abigail Williams, John Proctor, and Willy Loman, for 10 points, name this American playwright of *The Crucible* and *Death of a Salesman*. ANSWER: Arthur **Miller**
- 16. In bacteria, its theoretical formation from the Type III secretion system refutes arguments for its "irreducible complexity" made by intelligent design proponent Michael Behe. Like its smaller counterparts, this structure's axoneme contains the protein dynein and a characteristic "9 plus 2" arrangement of microtubules, and they connect to the cell membrane via a basal body. Algae that are members of the phylum that cause red tides usually have two of these structures. For 10 points, name this usually-singular tail-like structure which propels the motion of sperm cells and bacteria, and beats differently from cilia.

ANSWER: **flagellum** [accept **flagella**]

17. This man's ideological successors include the Naxalites in Bengal and central India; he gained many of his ideas working as a university librarian. After this man's death, the wife of this launcher of the Anti-Rightist Movement was disgraced as a member of the "Gang of Four." He quickly reversed his criticism-tolerating Hundred Flowers program and encouraged the building of backyard steel furnaces two decades after he led the Long March to evade Chiang Kai-Shek. For 10 points, name this leader under whom the Great Leap Forward and the Cultural Revolution occurred, the first chairman of Communist China.

ANSWER: Mao Zedong [accept Mao Tse-Tung]

18. One novelist from this country wrote of Gemmy Fairley's adoption by the McIvor family in *Remembering Babylon*; that author is David Malouf. Its main literary prize is named after the author of *My Brilliant Career*, Miles Franklin. Members of the Newby and Healy families are killed in another novel from this country, *The Chant of Jimmie Blacksmith*. Another writer from this country wrote about a factory owner who saves his Jewish employees from liquidation by the Nazis in a novel that was later adapted into the film *Schindler's List*. For 10 points, name this country of origin of Thomas Kenneally and Peter Carey, one of whose protagonists is an Aborigine.

ANSWER: Australia

19. "Work Song" and the spiritual "Come Sunday" are two of the sections of a piece that he recorded with Mahalia Jackson, a "tone parallel of the history of the Negro in America" called *Black, Brown, and Beige*. His band members Bubber Miley and "Tricky Sam" Nanton used plungers to create the "jungle" sound found in songs like "East St. Louis Toodle-oo." His best-known collaborator was Billy Strayhorn, who wrote a song about a conveyance that takes you to "Sugar Hill, way up in Harlem." For 10 points, name this jazz pianist and bandleader whose orchestra performed "Take the 'A' Train" and "It Don't Mean a Thing (If It Ain't Got That Swing)."

ANSWER: Duke **Ellington**

20. This phenomenon is exploited in substances with a closed optical loop, such as rubidium-85, to facilitate laser-cooling into Bose-Einstein condensate. Its transverse and relativistic forms occur due to time dilation when an object approaches the speed of light. For a laterally-moving object, the magnitude of this effect is proportional to the cosine of the angle between it and its viewer. Usually given as a proportion dependent on observer and source velocity, it is the cause of blueshift and redshift. For 10 points, name this effect in which a wave's frequency changes as it moves relative to the observer, often used in weather radar and perceived in passing ambulance sirens.

ANSWER: **<u>Doppler</u>**-Fizeau effect [accept **<u>Doppler</u>** shift]

TB. During this man's presidency, a border west of the San Juan Islands was set via the Treaty of Washington, by which his secretary of state Hamilton Fish resolved the Alabama claims. His attempt to annex Santo Domingo was supported by his private secretary, Orville Babcock. One of his campaign opponents died of a stroke after he won reelection; that man was Horace Greeley. His presidency saw the uncovering of the Crédit Mobilier and Whiskey Ring scandals. For 10 points, name this hard-drinking President succeeded by Rutherford B. Hayes, who was previously a Civil War general.

ANSWER: Hiram Ulysses S. Grant

Round 4 Bonuses

- 1. This king's troops crushed the Lombards at the Battle of Pavia and were themselves crushed while under the command of Roland at Roncesvalles Pass. For 10 points each:
- [10] Name this Frankish monarch succeeded by Louis the Pious, the Carolingian grandson of Charles Martel.

ANSWER: Charlemagne [accept Charles I or Charles the Great or Carolus Magnus or Karl der Grosse]

[10] The third Pope of this name crowned Charlemagne "King of the Romans" in 800 AD. The tenth was pope when the 95 Theses were issued, and the thirteenth issued the liberal encyclical *De Rerum Novarum*.

ANSWER: Leo

[10] This 843 treaty divided Charlemagne's empire between Lothair, Charles the Bald, and Louis the German, three of Charlemagne's grandsons. Nazi collaborationist Philippe Petain became a war hero at its namesake site in 1916. ANSWER: Treaty of **Verdun**

- 2. Pluto's fingers press into the flesh of the title figure's thigh in this artist's *The Rape of Proserpina* and he designed the Piazza San Pietro at the Vatican. For 10 points each:
- [10] Name this Italian sculptor and architect, who worked with his rival, Francisco Borromini, to complete Maderno's Palazzo Barberini.

ANSWER: Gian Lorenzo Bernini

[10] Outside the Palazzo Barberini stands a Bernini work of this type, depicting Triton blowing into a conch. Another Bernini work of this type depicts the Nile and the Danube among its title "four rivers".

ANSWER: fountains

[10] An angel stabs a spear through the title figure of this Bernini sculpture in the Cornaro Chapel.

ANSWER: The Ecstasy of St. Theresa

- 3. This class of reactions includes acid-base neutralization. For 10 points each:
- [10] Name this type of reaction in which the cations of two compounds switch places, distinguished from the "single" type since both compounds have positive and negative ions.

ANSWER: double replacement reaction [accept double displacement reaction; accept salt metathesis]

[10] This type of double replacement occurs when two ionic reactants are dissolved in one solution. Though two spectator ions remain dissolved, an insoluble solid product is quickly formed.

ANSWER: <u>precipitation</u> reaction [or <u>precipitate</u>-forming reaction]

[10] In organic chemistry, replacement is often called metathesis [accent the "ta," as in "tap dance"]. One such metathesis switches the bonds between two of these organic compounds, defined by the presence of a carbon-carbon double bond.

ANSWER: <u>olefins</u> [accept <u>alkenes</u> or <u>olefines</u>]

4. He was originally named Setanta, but earned a new name after killing the hound of a certain smith. For 10 points, [10] Name this warrior and son of the god Lugh, who served King Conchobar mac Nessa. He is the hero of the *Cattle Raid of Cooley*, and he defeated the forces of Queen Medb and his foster-father Fergus mac Roich.

ANSWER: Cu Chulainn

[10] Lugh was the leader of the Tuatha De Danann deities of this country, who conquered the Fomorians, but were themselves driven underground into fairy mounds. Other figures from its myths include Deirdre and Finn mac Cool.

ANSWER: **Ireland** or **Eire**

[10] The Morrigan is an Irish war goddess who takes the form of one of these birds when flying over a battlefield. Three-legged versions of it are deities in Chinese and Japanese myth, and a closely related species brings fire to mankind in many Native American myths.

ANSWER: **<u>crow</u>** (grudgingly accept **<u>raven</u>**)

- 5. Identify some of Chaucer's *Canterbury Tales*, for 10 points each.
- [10] Arcite and Palamon fight for the hand of Emily in this, the first tale told in *The Canterbury Tales*.

ANSWER: "The Knight's Tale"

- [10] The vain rooster Chanticleer has a dream about being captured by a fox, which comes true in this beast fable. ANSWER: "The **Nun's Priest**'s Tale"
- [10] Dorigen tells Aurelius that she will only marry him if he clears away all of the rocks on the coast in this Canterbury Tale, which is told by a character who is described as an "epicurean" in the prologue.

ANSWER: "The Franklin's Tale"

6. Name these battles fought on or near the Mediterranean Sea, for 10 points each.

[10] This 1571 victory for Don John of Austria's majority-Spanish Holy League over Ali Pasha near Greece demolished Ottoman naval power in the Mediterranean.

ANSWER: Battle of **Lepanto**

[10] A pre-Trafalgar victory for Horatio Nelson, this August 1798 defeat for Napoleon was technically fought in Aboukir Bay in the southeast Mediterranean.

ANSWER: Battle of the Nile River

[10] A historical Egyptian named Muhammad Ali used wooden ships at this 1827 battle, at which Edward Codrington's British-led coalition broke the Ottoman Navy, forcing the recognition of Greek autonomy.

ANSWER: Battle of Navarino

7. Though this "gentleman's game" originated in England, it has achieved its greatest popularity in South Asia, where the 2011 World Cup was recently held. For 10 points each:

[10] Name this bat-and-ball sport, in which batsmen face bowlers and can attempt to score runs in the form of fours and sixes. Famous players include Ian Botham and Sachin Tendulkar.

ANSWER: cricket

[10] In order to avoid dismissal by methods such as being bowled or run-out, batsmen defend these structures consisting of three stumps and two bails. A gate in *The Hitchhiker's Guide to the Galaxy* is named for them. ANSWER: wicket [or "Wikkit gate"]

[10] This nation's cricket team, captained by Ricky Ponting, was upset by India in the World Cup quarterfinals in March. They face England in The Ashes annually and Don Bradman, considered the best cricketer ever, played here.

ANSWER: Australia

8. Its eighteenth variation in D-flat major features an near-exact inversion of its primary theme. For 10 points each: [10] Name this composition for piano and orchestra based on a certain Italian composer's twenty-fourth caprice for solo violin.

ANSWER: Rhapsody on a Theme of Paganini, op.43 [or Rhapsody on a Theme by Paganini]

[10] This Russian pianist composed four piano concertos in addition to the Rhapsody on a Theme by Paganini.

ANSWER: Sergei Rachmaninoff

[10] Rachmaninoff also composed a set of variations for solo piano on a theme by this Italian Baroque composer who wrote the Christmas Concerto and helped develop the *concerto grosso* form.

ANSWER: Arcangelo Corelli

9. One study of this phenomenon claimed that it happened more often in peace than war and more often to Protestants than Catholics or Jews. For 10 points each:

[10] Name this action divided into egoistic, altruistic, anomic, and fatalistic types in the aforementioned study. Ruth Benedict analyzed a case of an honorable Japanese type called *seppuku*.

ANSWER: **suicide** [accept equivalents like "**killing yourself**"]

[10] This pioneering French sociologist wrote *Suicide*, as well as *The Elementary Forms of Religious Life* and *The Division of Labor in Society*.

ANSWER: Emile **Durkheim**

[10] *The Elementary Forms of Religious Life* examines the rain dances of the Pueblo, but it focuses on these people's totemism, which Durkheim claims to be the simplest form of documented religion.

ANSWER: Australian aborigines

10. Answer some questions about optics, for 10 points each.

[10] These transparent, refractive optical objects converge light to, or diverge light from, their focal point. They can be convex or concave.

ANSWER: lenses

[10] This law notes that the ratio between the sines of the angles of incidence and refraction is equal to the ratio of velocities before and after light passes from one refractive material to another.

ANSWER: **Snell**ius's **Law** [accept **Descartes' law** or **Snell-Descartes law**; prompt "law of refraction"]

[10] This physicist's equations give the reflectance and transmittance of a light beam hitting an interface between different indices of refraction. He also names near-field diffraction and a ribbed multi-part lens.

ANSWER: Augustin-Jean Fresnel (fray-NELL; accept FREZ-null)

- 11. This author of *Critique of Dialectical Reason* defined the property of people who refuse to acknowledge the extent of their own freedom as one type of "bad faith." For 10 points each:
- [10] Name this man whose magnum opus is Being and Nothingness.

ANSWER: Jean-Paul Sartre

[10] Jean-Paul Sartre helped popularize this philosophy, which holds that individuals must find their own way to give their lives meaning. The Theater of the Absurd draws heavily on this worldview.

ANSWER: existentialism

[10] This other twentieth-century French philosopher, who wrote *Of Grammatology*, pioneered the analysis of language through deconstruction.

ANSWER: Jacques **Derrida**

- 12. Answer some questions about rebellions in colonial America, none of which were the American Revolution, for 10 points each.
- [10] This 1787 rebellion of about eight hundred poor Massachusetts debtors outraged people such as John Adams, who encouraged revising or replacing the Articles of Confederation with a stronger Constitution.

ANSWER: Daniel Shays's Rebellion

[10] In 1676, Nathaniel Bacon killed many Native Americans with indentured servants' help before torching this triangular, walled settlement which underwent the "starving time" after its 1607 founding in modern-day Virginia.

ANSWER: Jamestown

[10] James II consolidated several northern colonies into this entity, led by Joseph Dudley and then Edmund Andros. Colonists revolted against Andros when word of England's Glorious Revolution spread.

ANSWER: **Dominion of New England** in America

13. The protagonist of this novel criticizes ballet, but has never seen one. For 10 points each:

[10] This is what novel about the affair between Shimamura and the geisha Komako in a resort town?

ANSWER: **Snow Country** [or **Yukiguni**]

[10] *Snow Country* is by this Japanese author, who wrote about another affair, this time between Kikuji and Mrs. Ota, in *Thousand Cranes*.

ANSWER: **Kawabata** Yasunari [accept names in either order]

[10] Another similarly meteorologically-titled novel is *Snow* by this Turkish Nobel Prize winner, who wrote about the murder of elegant Effendi in *My Name is Red*.

ANSWER: Orhan Pamuk

- 14. Along the top of this painting is an advertisement for five-cent cigars. For 10 points each:
- [10] This is what painting in which a woman in a red dress and two men in dark suits and fedoras sit at a diner counter?

ANSWER: Nighthawks

[10] *Nighthawks* is by this American realist who depicted a woman sitting across from a very similar-looking woman in a restaurant in *Chop Suey*.

ANSWER: Edward Hopper

[10] A woman holds a cup of coffee and sits alone at a table in the title establishment in this Hopper painting.

ANSWER: Automat

- 15. Name some African rivers for 10 points each.
- [10] This river is the world's deepest, and Kinshasa and Brazzaville lie on opposite banks.

ANSWER: Congo River

[10] This river produces Victoria Falls before emptying into the Mozambique Channel.

ANSWER: **Zambezi** River

[10] Lake Nasser was created when the Aswan Dam was built across this river. Henry Morton Stanley confirmed this river's source.

ANSWER: Nile River

- 16. Its author ordered it not to be published until 25 years after his death, but his wife transferred the rights to Yale University, and the original manuscript now sits in the Yale Dramat. For 10 points each:
- [10] Name this play, the final masterpiece of Eugene O'Neill, a semi-autobiographical work about the lives of the alcoholic, embittered Tyrone family, as Mary sinks into opium addiction, and Edmund suffers from tuberculosis.

ANSWER: Long Day's Journey into Night

[10] In this other O'Neill work, Theodore Hickey tries to help the residents of Harry Hope's saloon realize their "pipe dreams" only to shatter their hopes when it is revealed that he has gone crazy and killed his wife.

ANSWER: The Iceman Cometh

[10] This early play by O'Neill follows Yank, a ship laborer, and his identity crisis. After leaving his ship, wandering Manhattan, and unsuccessfully joining the IWW, he dies in the arms of the title character at the zoo.

Answer: The Hairy Ape

17. For 10 points each, answer these questions about a continent with relatively little "world history," Antarctica. [10] This Norwegian explorer's team was the first to reach the South Pole, 35 days before his rival Robert Falcon Scott; Scott died on the return journey knowing that this guy had gotten there first.

ANSWER: Roald Amundsen

[10] This man's ship, the *Endurance*, got stuck in pack ice on a trans-Antarctic expedition; he got his men to the Sandwich Islands near Argentina on lifeboats.

ANSWER: Sir Ernest Shackleton

[10] This man took the two ships *Erebus* and *Terror*, which now name two volcanoes, into the Antarctic, and failed to pass through a massive ice shelf.

ANSWER: James Clark Ross

- 18. Its allopatric type occurs as a result of geographical isolation. For 10 points each:
- [10] Name this process by which evolutionary changes in a population accumulate to a point so as to allow it to mate only within itself, creating a new taxonomic group.

ANSWER: speciation

[10] This model, developed by Stephen Jay Gould, explained large gaps in the fossil record by claiming that speciation happened in short, rapid bursts between millions of years of stasis.

ANSWER: punctuated equilibrium

[10] Similar to divergent evolution, this occurs when one ancestor species evolves outward into many distinct species occupying different ecological niches. Because of it, there are 13 species of Darwin's finches, and not one.

ANSWER: adaptive radiation

- 19. Name these important saints in the development of Christian monasticism, for 10 points each.
- [10] According to St. Athanasius of Alexandria, this leader of the Desert Fathers was the first monk. He lived in the Egyptian desert and was frequently tormented by demons, including two in the shapes of a satyr and a centaur. ANSWER: St. **Anthony** the Great

[10] This 5th and 6th century patron saint of Europe and of students founded the first Western monastic order, and wrote a namesake "Rule" governing the behavior of monks. The Cistercian order sought to return to a strict observance of his Rule in reaction to the perceived laxity of this man's order in the Abbey of Cluny.

ANSWER: St. **Benedict** of Nursia

[10] This 12th and 13th century Italian priest founded three mendicant monastic orders, of which the Capuchins are possibly the most famous today. He was the first person to receive the stigmata, and is the patron saint of animals due to his act of preaching to the birds.

ANSWER: St. Francis of Assisi [prompt on just "St. Francis"]

- 20. At the beginning of this novel, the protagonist expresses no emotion whatsoever over his mother's death. For 10 points each:
- [10] Name this novel, whose central event is Mersault's murder of an Arab.

ANSWER: *The Stranger* [or *L'Etranger*; or *The Outsider*]

[10] This author of *The Plague* and *The Myth of Sisyphus* wrote *The Stranger*.

ANSWER: Albert Camus

[10] This novel by Camus is narrated in second-person by a self-titled "judge-penitent." He discusses the way his life and outlook change after he chooses not to save a woman from drowning.

ANSWER: The Fall [or La Chute]

TB. Name some huge things that surround the earth, for 10 points each.

[10] Explained by "dynamo theory", this humoungous dipole protects the Earth from the solar wind and allows compasses to point north. It may spontaneously "reverse" every so often.

ANSWER: the Earth's **magnetic field** [or **geomagnetic field**]

[10] These two toroidal regions of ionized particles are maintained by the Earth's magnetic field. They house energetic particles, which are damaging to spacecraft that orbit within it.

ANSWER: van Allen belts [prompt "radiation belt[s]"]

[10] Studied by the HAARP apparatus in Alaska, this atmospheric region with D, E, and F layers has an effect on radio waves caused in turn by the sun's effect on this region.

ANSWER: **ionosphere** [prompt "thermosphere"]