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| High School Academic Pyramid Questions | **FCAT**  **Round 3** |

1. In a novel by this author, Nancy Lammeter refuses the request to adopt a child from her husband, Godfrey Cass. This author wrote about Eppie, who is adopted by the title weaver of Raveloe, in that novel. She also wrote a “Study of Provincial Life” in which the mythology scholar Edward Casaubon marries Dorothea Brooke. For 10 points, name this author of *Silas Marner* and *Middlemarch.*  
ANSWER: George **Eliot** [or Mary Ann **Evans**]

What colonial African-American poet wrote “On Being Brought from Africa to America” and “To His Excellency General Washington?”  
ANSWER: Phillis **Wheatley**

2. Concurrency for lines drawn these structures can be determined by Ceva's Theorem. A nine-point circle can be constructed around these shapes, through which the Euler line passes its center. A method for calculating their area is Heron's formula, and the Pythagorean Theorem is applied to the "right" variety of these. Types of them include also include scalene, isosceles, and equilateral. For 10 points, name these three-sided polygons.  
ANSWER: **triangle**s

Name the Eighteenth Dynasty pharaoh who defeated Canaanite forces at the Battle of Megiddo and defaced the monuments of his stepmother Hatshepsut.  
ANSWER: **Thutmose III** [or **Thutmosis III**; or **Tuthmosis III**; prompt on **Thutmose** or **Thutmosis** or **Tuthmosis**]

3. Rebellious slaves in this nation were resettled at Accompong and Trelawny Town after fighting a guerrilla war from its rugged Cockpit Country under Queen Nanny. This home to the Dry Harbour and Blue Mountains and site of the Maroon Wars lies across a namesake channel from the western tip of Haiti. The third-largest island in the Greater Antilles, for 10 points, name this Caribbean country lying south of Cuba, a former British colony whose capital is Kingston.  
ANSWER: **Jamaica**

What kind of logical statement occurs when the conclusion is equivalent to the premise and is thus always true?  
ANSWER: **tautology**

4. This composer's son-in-law Maximilian Steinberg finished his book on orchestration.Two movements titled "Alborada" are found in his *Capriccio Espagnol.* This composer’s symphonic poem about the *Arabian Nights* begins with the movement "The Sea and Sinbad’s Ship." He is best known for a frantic piece from his opera *The Tale of Tsar Saltan,* that depicts a prince's transformation into an insect. For 10 points, name this Russian composer of *Scheherazade* and the "Flight of the Bumblebee."  
ANSWER: Nikolai **Rimsky-Korsakov** [Nikolai Andreyevich **Rimsky-Korsakov**]

What lesions in the stomach or small intestine were shown to be caused by the *H. Pylori* bacterium by researchers who the 2005 Nobel in Physiology or Medicine?  
ANSWER: peptic **ulcer**s [or gastric **ulcer**s]

5. A character in this novel is told that the Yankees have "the great DiMaggio" by the protagonist, who engages in an arm-wrestling match with a black man from Cienfuegos. The protagonist of this novel, whose apprentice is Manolin, is given the name "salao" to represent unluckiness due to the fact that he has gone eighty-four days without catching a fish. For 10 points, identify this novel about the Cuban fisherman Santiago's battle with a marlin, written by Ernest Hemingway.  
ANSWER: *The* ***Old Man and the Sea***

Name the Robert Penn Warren novel in which Jack Burden narrates the rise and fall of Governor Willie Stark.  
ANSWER: ***All the King’s Men***

6. This structure's namesake "dots" or "domains" are called PML bodies. The membrane which surrounds this structure has importins and exportins, which are used for transport. Support for this organelle is provided by a fibrillar network known as its "lamina". This organelle is where ribosomes are produced, and it is only found in eukaryotes. For 10 points, name this organelle that contains a cell's genetic material and often functions as the "control center" of a cell.  
ANSWER: **nucleus**

This is a 20-second calculation question. For what values of *x* does the inverse sine of quantity one-half *x* plus 3 exist?  
ANSWER: *x* is **between negative pi minus six, and pi minus six, inclusive** [or **[-pi-6,pi-6]**; prompt on *x* is **between negative pi minus six and pi minus six**]

7. This empire sent an expedition to "Fire Island" in boats called balsas. This empire's system of forced labor, the mit'a, was adopted into the Spanish encomienda system. A ruler of this empire threw a bible on the ground at the Battle of Cajamarca and was executed despite filling a room with gold for his captors. Atahualpa ruled this empire, which also built Machu Picchu. For 10 points, name this empire that was conquered by Pizarro and existed in modern day Peru.  
ANSWER: **Inca** Empire [or **Tawantinsuyu**]

This is a 20-second calculation question. What are the two binomial factors of the expression "*x* squared plus 6 *xy* plus 5 *y* squared"?  
ANSWER: (***x*+y**) and (***x*+5*y***) ("x plus y and x plus 5 y")

8. An officer of this ship named Peter Heywood later escaped the wreck of the Pandora. A captain of this ship was found hiding under a bed by participants in the Rum Rebellion. While on this ship, a man yelled "I am in hell!" before taking this ship to Pitcairn island. This ship's captain, William Bligh, embarked on a 4,000 mile journey in a launch boat after Fletcher Christian seized command of this ship. For 10 points, identify this British ship where a famous mutiny occurred in the south Pacific.  
ANSWER: *HMS* ***Bounty***

Name the Czech author who described the intellectuals Tomas and Tereza in his novel *The Unbearable Lightness of Being*.  
ANSWER: Milan **Kundera**

9. A steel or tungsten carbide ball is used to measure this property in the Brinell test while a square pyramid is used in the Vickers test; both tests measure the "indentation" form of this property. A sclerometer is often used to measure the "scratch" form of this property. A scale for this property for minerals gives talc a value of 1 and diamond a value of 10. For 10 points, name this property of materials that can be measured, relatively, on the Mohs scale.  
ANSWER: **hardness** [or scratch **hardness**; or indentation **hardness**]

What Northern Irish golfer broke off his engagement to Caroline Wozniacki a few months before winning the 2014 British Open?  
ANSWER: Rory **McIlroy**

10. This election’s losing candidate injured his knee on a car door, which left him sidelined for two weeks. That losing candidate declined to investigate the mass reports of voting fraud that took place under the Chicago machine of Richard Daley. This election was marked by the first use of televised debates in a presidential election, which helped the physically charismatic winner. For 10 points, name this presidential election in which John F. Kennedy defeated Richard Nixon.  
ANSWER: Election of **1960**

What Jane Austen novel follows the sisters Marianne and Elinor Dashwood?  
ANSWER: ***Sense and Sensibility***

11. Affinity laws relate the impeller velocity in the centrifugal class of these devices to the head gain. These devices are primed before use by filling the tube with fluid. Air conditioners and refrigerators act as the "heat" type of these devices since they move heat opposite the normal flow of energy. These devices use an energy input to move fluid against gravity or to provide pressure for flow. For 10 points, name these devices that can be used to inflate bike tires.  
ANSWER: **pump**s [or air **pump**s; or heat **pump**s]

What adjective beginning with the letter “s” refers both to someone who is optimistic and to something that has a blood-red color?  
ANSWER: **sanguine**

12. This language is not Latin nor Greek, but it was used to write the first philosophical novel, *Philosophicus Autodidactus.*. A philosopher who wrote primarily in this language created the "floating man" thought experiment and wrote the encyclopedia *The Canon of Medicine.* *The Incoherence of the Philosophers* was written in this language by Al-Ghazali. For 10 points, name this language used by Ibn Tufail and Ibn Sina, two Islamic philosophers.  
ANSWER: **Arabic** [or **al-Arabiyah**]

What Attorney General under Wilson was prompted by an Anarchist bombing of his porch to launch a series of namesake reds during the first Red Scare?  
ANSWER: Alexander Mitchell **Palmer**

13. The book *Bringing Down The House* is about students at MIT who play this game. Pontoon is a variation on this game. This game served as John Pershing’s nickname. Dustin Hoffman’s character in *Rain Man* won at this game by counting cards, which is a popular strategy. In this game, the ace can be worth either one or eleven points. For 10 points, name this card game often played in casinos, in which the player attempts to hit a score of twenty-one.  
ANSWER: **blackjack** [or **twenty-one** until it is read]

What Mayor of Toronto admitted in November of 2013, after months of denials, that he smoked crack cocaine “in a drunken stupor”?  
ANSWER: Rob **Ford**

14. Aaron Beck developed the "cognitive-behavioral" form of this process, which aimed to change self-defeating thoughts. Carl Rogers encouraged "active listening" and empathy in his "client-centered" form of this process. For 10 points, name this process of treating psychological problems which can involve a client on a couch talking with a psychologist.  
ANSWER: **therapy** [or **counsel**ing]

What type of star is composed of electron-degenerate matter and forms when a red giant sheds its outer layers?  
ANSWER: **white dwarf**

15. This object had the power of prophecy because part of it was constructed from Zeus's grove at Dodona. As this object lay rotting, a piece of it fell off and killed its sleeping owner. This object's stern was damaged while passing through the Clashing Rocks. This ship's destination was Colchis, where King Aeetes's daughter Medea helped steal an object that hung on a branch. For 10 points, name this ship in which Jason sailed on the quest for the Golden Fleece.  
ANSWER: ***Argo*** [or **Argo**nauts]

Give the term for the Ancient Greek military formation that took its name from the Greek word for "finger" and consisted of several spear-wielding hoplites moving as one unit.  
ANSWER: **phalanx**

16. What Old Testament prophet saw a “valley of dry bones” and a wheel in the air in a namesake book immediately after the Book of Lamentations?  
ANSWER: **Ezekiel**

This is a 30-second calculation question. Line AB is tangent to circle O at point C. If segments AC, BC, and OC all have the same length, then what is the measure of angle AOB?  
ANSWER: **90** degrees

17. A holder of this position carried two swords symbolizing "miri" and "piri" and built the Akal Takht, or Timeless Throne. The current holder of this position is not a man but a text compiled by the fifth one of these, Arjun Dev. Its final human holder created the Khalsa, whose members practice the 5 Ks and do not cut their hair, and left this office to the Granth Sahib. For 10 points, name this position held by Nanak and other leaders of Sikhism, a Sanskrit word for “teacher” or “master.”  
ANSWER: **guru**

This is a 30-second calculation question. What is the absolute value of the difference between the arithmetic mean and the median of the following set of numbers: 2, 4, -2, 4, -2, -3, 1, 4, -4?  
ANSWER: **5/9**

18. The only major source of this metal in Roman Britain was the mines at Dolaucothi. Vast amounts of this metal have been extracted from Witwatersrand in South Africa, which supplied much of the material for Krugerrand coins. Spanish explorers were tempted by the legends of Cibola, the “seven cities” of this metal, which was sought by prospectors after an 1848 discovery at Sutter's Mill in California. For 10 points, name this precious metal whose chemical symbol is Au.  
ANSWER: **Gold**

What Australian landmark with an iconic series of layered shells was designed by Jorn Utzon?  
ANSWER: **Sydney Opera House**

19. This chemist mentored Harold Urey and was the first to produce heavy water by electrolysis. This scientist died of cyanide poisoning in his lab, a suicide often blamed on his infamous failure to win the Nobel Prize. This chemist described a cubical atom in an early formulation of the octet rule, which was part of his valence bond theory. This man's namesake bases donate electron pairs. For 10 points, name this chemist who introduced dot structures to represent compounds.  
ANSWER: Gilbert Newton **Lewis**

What square mile-sized region, next to the City of Westminster, contains the stock exchange and much of the financial industry of a major world city?  
ANSWER: the **City of London** [prompt on “the City”; do not accept “London”]

20. This man levelled an embargo on the city of Megara after his herald was murdered in a sacred field. This lover of Aspasia succeeded his mentor Ephialtes and won the Samian war. The Gettysburg Address may have been based on this man's Funeral Oration. This leader died in a mysterious plague that ravaged his city and commissioned Phidias to build a statue on the Acropolis. For 10 points, name this leader who presided over Athen's Golden Age.  
ANSWER: **Pericles**

The words "sum" (SOOM), "eram" (EH-rom), and "fui" (FWEE) are all forms of the irregular Latin verb meaning "to be," and are all in what grammatical person?  
ANSWER: **first** person

21. At the center of this painting, several people crawl from a stream into an oversized egg. A dagger pierces a disembodied hand next to a pig in a nun's outfit, featured on this painting's bottom right corner. This painting's leftmost panel, representing paradise, is dominated by a pink fountain. It depicts scenes from hell on its right side. For 10 points, identify this triptych created by Hieronymus Bosch.  
ANSWER: *The* ***Garden of Earthly Delights***

What entrepreneur was told by a childhood phrenologist that he was best suited to food service – only to later inaugurate the fast food industry by founding McDonald's?  
ANSWER: Ray **Kroc**

22. Dick Cheney was the last person to hold this position under President Ford. Leon Panetta took on this role in the Clinton administration after Mack McLarty was fired. The first man to hold this position for President Obama quit in 2010 to run for Mayor of Chicago. Jack Lew left this role in 2013 to become Secretary of the Treasury and was replaced by Denis McDonough. For 10 points, name this White House position that has been held by men like Rahm Emmanuel.  
ANSWER: White House **Chief of Staff**

What modern language primarily spoken in northeastern Spain and southwestern France has not been shown to relate to any other known language?  
ANSWER: **Basque** [or **Euskara**]

23. This man killed John Sheets out of revenge for the death of his former boss, "Bloody Bill" Anderson, a Confederate bushwhacker. That murder came when he and an older relative were teamed up with Cole Younger. The leader of the gang that tried to perpetrate a raid on Northfield, Minnesota, this man was ultimately killed when he was shot in the back by Robert Ford. For 10 points, name this western outlaw who robbed banks with his brother, Frank.  
ANSWER: Jesse Woodson **James**

Angle-side-side does NOT ensure what relationship between two geometric figures, in which they are of the same size and shape?  
ANSWER: **congruency** [or word forms, such as **congruent**]

24. In one of this man’s plays, Lord Byron is an unseen character. That play of his is about the mathematical prodigy Thomasina Coverley. In another play by this author, a coin comes up heads ninety-two times in a row when flipped by the title characters. That play of his focuses on two minor characters from *Hamlet.* For 10 points, name this British playwright of *Arcadia* and *Rosencrantz and Guildenstern Are Dead.*  
ANSWER: Tom **Stoppard** [or Tomas **Straussler**]

What organ, absent in DiGeorge syndrome, is located beneath the sternum and is both the maturation site and namesake of T-cells?  
ANSWER: **thymus**

25. An antagonist on this show is Malcolm Merlyn, who killed the protagonist’s father by sabotaging his boat, and is played by John Barrowman. Deadshot kills Andy Diggle on this show, and later teams up with his brother John on Amanda Waller’s Suicide Squad. The protagonist of this series returns to Starling City after being trapped on the island of Lian Yu for five years, and is played by Steven Amell. For 10 points, name this series on the CW about the exploits of Oliver Queen.  
ANSWER: ***Arrow*** [do not accept "Green Arrow"]

This is a 20-second calculation question. A store offers a 40% off sale on all of its items. If you pay 21 dollars for a math book, what was its original price before the sale?  
ANSWER: **35** dollars

26. A group in this poem is said to be “burning for the ancient heavenly connection” and “smoking in the supernatural darkness.” The second part of this poem makes frequent reference to the ancient god Moloch. It was dedicated to Carl Solomon and published through the City Lights bookstore. This poem begins, “I saw the best minds of my generation destroyed by madness.” For 10 points, name this seminal poem by the Beat Generation poet Allen Ginsberg.  
ANSWER: ***Howl***

This is a 20-second calculation question. Let A be the reference angle for an arc measuring 5 pi over 3 radians. What is the cosine of A?  
ANSWER: **1/2** [or **0.5**]

27. An iron-sulfur protein called aconitase is active in this pathway. Succinate dehydrogenase reduces FAD to FADH2 in this metabolic process. In its first step, template oxaloacetate reacts with acetyl-CoA to form a six-carbon tricarboxylic acid. This pathway makes two ATP and evolves four carbon dioxide molecules per glucose molecule. For 10 points, name this cycle which takes place in the mitochondrial matrix during respiration.  
ANSWER: **Krebs** cycle [or **citric acid** cycle; or **tricarboxylic acid** cycle; or **TCA** cycle]

What Ohio city home to Goodyear was once called the “Rubber Capital of the World”?  
ANSWER: **Akron**, Ohio

28. This nation’s government has a majority share in Statoil. It narrowly rejected joining the European Union in 1972 and 1994. This nation’s Ekofisk oil field was the first to be discovered in the North Sea. Its language is written using the competing standards of Bokmål and Nynorsk. In 2011, a youth camp associated with this nation’s Labor Party was the victim of a mass shooting by Anders Breivik. For 10 points, name this Scandinavian nation whose capital is Oslo.  
ANSWER: **Norway** [or Kingdom of **Norway**] [or Kongeriket **Norge**] [or Kongeriket **Noreg**]

What man of Irish and Spanish ancestry won the Battle of Maipú (my-POO) and became the father of independent Chile?  
ANSWER: Bernardo **O'Higgins**

29. Doctor Pascal is the title physician of a novel by this author. Jacques Lantier is at the center of another novel by this author, who also described Lantier's half-sister playing the lead role in a performance of *The Blonde Venus.* Those works, *The Human Beast* and *Nana,* appear alongside *Germinal* in this author's twenty-novel cycle called *Les Rougon-Macquart.* For 10 points, name this French author who wrote a letter defending Alfred Dreyfus entitled "J'accuse."  
ANSWER: Emile **Zola**

What term is used to describe instances in which an entity is referred to by the name of a closely related entity, such as the use of the word “Washington” to refer to the American government?  
ANSWER: **metonymy**

30. This opera called for a now-lost “instrument of steel” to represent bells carried by a character originally sung by the librettist Emmanuel Schickander. That character from this opera is a birdcatcher who functions as comic relief. This opera’s primary antagonist is a coloratura soprano, the Queen of the Night. This opera employs Masonic symbolism in depicting the journey of Papageno and Tamino. For 10 points, name this singspiel, the final opera of Wolfgang Mozart.  
ANSWER: *The* ***Magic Flute*** [or *Die* ***Zauberflöte***]

Name the physicist whose namesake "scattering" is responsible for the blue color of the sky.  
ANSWER: Lord **Rayleigh** [or John William **Strutt**]

31. The existence of this quantity was proven when Stern and Gerlach fired silver atoms through an inhomogeneous magnetic field. The fourth quantum number describes this property, which for electrons can be either plus or minus one-half. A consequence of the Pauli exclusion principle is that two electrons in the same orbital cannot have the same value for this quantity. For 10 points, give the term for the intrinsic angular momentum of a particle, which is either "up" or "down."  
ANSWER: **spin** [or **intrinsic angular momentum** until it is read]

What Michael Bay-directed 1995 film stars Martin Lawrence and Will Smith as narcotics detectives in Miami?  
ANSWER: ***Bad Boys***

32. This number is the bond order of a compound with 6 bonding electrons and 2 antibonding electrons. This value is the most common oxidation state of zinc and nickel ions. Nitrogen gas contains this many pi bonds. Ordinally, radium and barium are in this group on the Periodic Table: the alkaline earth metals. Every atomic orbital holds at most this many electrons. For 10 points, give this number of hydrogen atoms in a water molecule.  
ANSWER: **two** [or positive **two**]

What French dynasty solidified its hold on power after Clovis defeated Alaric II's Visigoths at the Battle of Vouille in 507 CE?  
ANSWER: **Merovingian**

33. Throughout this woman’s career, she was rivals with the Italian Elsa Schiaparelli. Her affair with “Boy” Capel influenced her design of men’s blazers. Credited with popularizing the design of the little black dress, this woman worked with perfume maker Ernst Beaux in creating her trademark “No. 5” scent. For 10 points, name this French fashion designer who popularized a liberation in women’s styles in the twentieth century.  
ANSWER: Coco **Chanel** [or Gabrielle Bonheur **Chanel**]

Don Pedro arrives in Messina at the beginning of what Shakespeare comedy, in which the argumentative pair Beatrice and Benedick fall in love?  
ANSWER: ***Much Ado About Nothing***

34. Though he did not live to see it, this Amendment was the main focus of Wayne Wheeler's political group. It indirectly helped Bugs Moran to make millions, and the opposing sides regarding its passage were known as the "drys" and the "wets." This Amendment was enforced by the Volstead Act, and it was reversed by the Twenty-First Amendment. For 10 points, name this Constitutional Amendment that established a prohibition on alcohol.  
ANSWER: **Eighteenth** Amendment [prompt on **Prohibition**]

What contemporary American novelist wrote *Blood Meridian,* *No Country for Old Men,* and *All the Pretty Horses*?  
ANSWER: Cormac **McCarthy**

35. The protagonist of this novel dresses as a ham for a Halloween pageant. The narrator of this novel begins by remarking that when her brother was thirteen, he got his arm badly broken at the elbow. When the central characters of this novel are attacked by Bob Ewell, they are rescued by the reclusive Boo Radley. For 10 points, name this novel about Scout and Atticus Finch by Harper Lee.  
ANSWER: ***To Kill a Mockingbird***

This is a 30-second calculation question. The chance of rain tomorrow is 60% if it rains today and 20% if it does not. If the chance that it rains today is 80%, then what is the probability that it rains tomorrow?  
ANSWER: **52%** [or **0.52**; or **13/25**]

36. An exponential, plus one, is in the denominator of some statistics named for Paul Dirac and this other physicist. This man won a Nobel Prize for discovering transuranium elements that didn't actually exist. The Pauli exclusion principle applies to subatomic particles named for this physicist, which have half-integer spin. On the football field at the University of Chicago, this scientist supervised Chicago Pile-1, the first self-sustaining nuclear chain reaction. For 10 points, name this Italian-American physicist.  
ANSWER: Enrico **Fermi**

This is a 30-second calculation question. What is the perimeter of the triangle whose vertices are at (8,5), (3,5), and (3,-7)?  
ANSWER: **30** units

37. This person received a telegram about a meeting with Vincent Benedetti in a spa town. This man negotiated the Gastein convention and the Reinsurance treaty. This predecessor of Count Caprivi edited the Ems dispatch to start a war that his country won at the Battle of Sedan. This man orchestrated the May Laws as part of his anti-Catholic Kulturkampf program and led his country into a Seven Week war with Austria. For 10 points, name this chancellor who used realpolitik to unify Germany.  
ANSWER: Otto von **Bismarck**

What British philosopher, whose preserved corpse still sometimes attends board meetings at University College London, is regarded as the founder of utilitarianism?  
ANSWER: Jeremy **Bentham**

38. Charles Barkla showed that every element has a unique spectrum when this radiation is incident. Diffraction studies using this radiation are analyzed using Bragg's law. This radiation was discovered being emitted from a Crookes tube. The first use of this radiation for imaging showed a ring on the left hand of the wife of its discoverer, Wilhelm Roentgen. For 10 points, name this radiation whose wavelength falls between that of UVA and gamma rays and which is often used to image bones.  
ANSWER: **X**-ray radiation

At the end of what Luigi Pirandello play does The Boy kill himself after his family interrupts The Director’s staging of *The Rules of the Game*?  
ANSWER: ***Six Characters in Search of an Author*** [or ***Sei personaggi in cerca d'autore***]

39. This nation’s minor parties include Left Ecology Freedom, as well the technocratic Civic Choice, which is in coalition with the ruling Renzi government. This nation’s populist Five Star Movement is led by comedian Beppe Grillo. A former Prime Minister in this nation was barred from holding office after a scandal involving his “bunga bunga” parties. For 10 points, tycoon Silvio Berlusconi used to lead what country?  
ANSWER: **Italy** [or **Italian Republic**; or **Repubblica Italiana**]

Name the former House Majority Leader and Virginia Congressman who resigned after a stunning primary loss to Tea Party candidate David Brat.  
ANSWER: Eric **Cantor** [Eric Ivan **Cantor**]

40. In the Mushet method, manganese-containing ores like spiegeleisen are added to this material. To improve this substance's purity, air oxidizes silicon, forming a slag, in a pot lined with either clay or dolomite. The Siemens-Martin process manufactured this material using open hearth furnaces. It is produced from pig iron in the Bessemer process. For 10 points, name this strong alloy of iron and carbon, which also contains chromium in its "stainless" variety.  
ANSWER: **steel** [prompt on pig **iron** until it is read]

Name the art movement whose prominent practitioners include David Hockney and Jasper Johns.  
ANSWER: **pop** art

*End of regulation round*.

Extra. This man popularized the ideas of Honore Blanc and Louis de Tousard. Matilda Gage claimed that Catherine Greene, the wife of general Nathanael Greene, assisted this man. This man dismantled and reassembled ten guns in front of Congress to demonstrate his idea of interchangeable parts. His most famous creation removed seeds from lint and revitalized slavery in the South. For 10 points, name this inventor of the cotton gin.  
ANSWER: Eli **Whitney**

Extra. In one story, this character saves Helen Stoner from the “speckled band,” which is actually a venomous snake. Upon retiring, this character takes to beekeeping. He first appeared in the story “A Scandal in Bohemia.” This character was killed off in the story “The Final Problem,” falling over Reichenbach Falls while fighting Dr. Moriarty. For 10 points, name this master sleuth aided by Dr. John Watson, who was created by Arthur Conan Doyle.  
ANSWER: Sherlock **Holmes** [or **Sherlock** Holmes]

Extra. This man created a riddle where the answer referred to honey found in a lion’s carcass. He destroyed fields by attaching torches to foxtails and he used the jawbone of a jackass to kill a thousand of his enemies. After being blinded, this man killed himself and many enemies by destroying the temple of Dagon, a Philistine god. This Nazirite lost his strength when his hair was cut. For 10 points, name this biblical strongman, who was seduced by Delilah.  
ANSWER: **Samson**

Extra. This character was legendarily killed in 537 at the Battle of Camlann. He is raised alongside Sir Kay by Sir Ector. This man’s father disguised himself as Gorlois to enter the bedchamber of his mother, Igraine. This man, the son of Uther Pendragon, is married to Guinevere. For 10 points, name this mythical king of England, who pulled the sword Excalibur from the stone and leads the Knights of the Round Table.  
ANSWER: King **Arthur**

Extra. In Zoroastrianism, Angra Mainyu is blamed for introducing this substance to King Zohak. This substance must be "jhatka" and not "kutha" for Shaivites and other Hindu sects that use it. In Islam, the process of acquiring this substance is known as "dhabihah," and in Judaism, it is called "shechita;" both of those methods involve severing the carotid and jugular with a sharp knife. For 10 points, identify this substance which is completely avoided by Jains and other vegetarians.  
ANSWER: **meat**

Extra. What lab technique, often used following PCR, separates macromolecules based on their size and charge by using a matrix of agarose?  
ANSWER: **gel electrophoresis** [prompt on **electrophoresis**]

Extra. For what values of *x* does the expression e to the quantity *x* squared minus 6 *x* plus 5 equal 1?

ANSWER: *x* = **1** and *x* = **5** [accept answers in either order]

Extra. What Elizabethan nobleman wrote the prose romance *Arcadia* and the sonnet sequence *Astrophil and Stella*?  
ANSWER: Philip **Sidney**

Extra. Find all real solutions to the equation *x* minus 2 plus square root of *x* equals 0.  
ANSWER: x = **1** [do not accept additional answers]