

STIMPY 2015: we barely wrote the tournament, so there was no time to write a subtitle

Packet by NYU and Kentucky B

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Tossups

1. A work in this artistic genre depicts a sorceress unfurling a scroll and summoning an extremely large skeleton, which smashes through the wall in the background. A work in this genre depicts two women sitting on the floor shaping silk floss and was included in a series of *Eight Parlor Views*. The first work in a series of works in this genre depicts several pilgrims with baskets congregating between two fences after crossing over a yellow bridge as they prepare to travel on one of the (*) Five Routes. Another work in this genre depicts three cargo boats being swallowed up by a foamy sea swell off of Kanagawa Prefecture. For 10 points, name this genre of Japanese woodblock printing practiced by artists like Katsushika Hokusai, whose name means “pictures of the floating world.”

ANSWER: ukiyo-e [prompt on “woodblock print”; accept “pictures of the floating world” before mention]

2. A member of this dynasty was influenced by George Cassander’s theology to create the *Nova Ordinantia* and the Red Book liturgy. A king of this dynasty commissioned Louis de Geer’s blast furnaces and allowed de Geer to sell copper from the Falun mine. A giant warship named for this dynasty sank on its maiden voyage thanks to its low gunports. This dynasty allied with France by the Treaty of Barwalde and won land in the Treaty of Stolbovo after the (*) Ingrian war. A “bloodbath” orchestrated by Archbishop Trolle led this dynasty’s founder to revolt against Christian II. A king of this dynasty was advised by Axel Oxenstierna and died at Lützen after winning the Battle of Breitenfeld. For 10 points, name this Swedish dynasty of Gustavus Adolphus.

ANSWER: House of Vasa

3. This religious sect’s Sunday services consist of “Bible lesson sermons” on twenty-six topics which are studied twice per year. This sect’s six tenets refer to Jesus Christ as the “Way-Shower,” and hold that he came to Earth to destroy the belief in sin and demonstrate the unreality of physical matter. Much of the day to day government of this church is controlled by a constitution called the *Manual of the Mother Church*. Members of this sect practice absent (*) treatment, in which people are prayed for from far away. This sect, which is known for its many reading rooms, grew out of an 1875 book partially titled for the “key to the scriptures” and is based in Boston. For 10 points, name this Christian sect founded by Mary Baker Eddy, who believed that illness could be cured with prayer alone.

ANSWER: Christian Science

4. An author from this country created a character who escapes his execution because the watching crowd is so aroused by him that they have an orgy. A novel from this country follows a man who lives in a volcano for seven years before murdering 25 girls in an effort to create the perfect scent. In a novel from this country, the protagonist’s mother only eats fish after seeing a man fishing for eels with a horse’s head. A character from this country befriends a (*) museum attendant who is impaled while making love to a ship’s figurehead, and is blamed for the murder of Sister Dorothea. In that novel from this country, the protagonist can shatter glass with his voice and stops growing at age three, Oskar Matzerath. For 10 points, name this home of Patrick Suskind and the author of *The Tin Drum*, Gunter Grass.

ANSWER: Germany [or Deutschland]

5. The Sco–Cen OB Association interacts with the nearby Rho Ophiuchi cloud complex to sustain this process. Messier 82, whose interaction with M81 gives it a superwind, is the prototype of a class of galaxies in which this is unusually common. Whether surrounding clouds’ pressure is neglected distinguishes two

Commented [1]: nice tongue twisters

quantities delimiting the conditions for this process; those are named for (*) Bonnor–Ebert and Jeans. Green doubly ionized oxygen and propyls in the Orion Nebula are characteristic of this process, propagated by UV emission from H II regions. Fingery blobs in a famous Hubble image of the Eagle Nebula show this process. T Tauri variables can result from this process, which occurs in dense areas of dust called Bok globules, and this is driven by the collapse of molecular clouds. The Pillars of Creation display, for 10 points, what process by which objects such as the Sun come into existence?

ANSWER: **star formation** [accept **stellar nursery**, **stellar birth**, **starburst**, or any equivalents]

6. A 1425 chronicle records an incident in which four people with this condition were suited in armor and then forced to fight a large pig. St. Louis founded a hospital for three hundred people with this condition called the Quinze-Vingt (“cans-vant”). A king with this condition had his motto “I serve” and his crest of three ostrich feathers adopted by the victor at the Battle of Crecy. A writer with this condition invented a “Battle of Loudon Hill” for his work on the (*) “Acts and Deeds” of William Wallace. The architect Postnik Yakovlev was supposedly afflicted with this condition after completing St. Basil’s Cathedral. This condition was inflicted on 99 out of every 100 prisoners after the Battle of Kleidion by Basil the Bulgar Slayer. For 10 points, name this condition inflicted on deposed Byzantine emperors, whose sufferers probably didn’t use the Braille writing system in the Middle Ages.

ANSWER: **blindness**

7. In one lecture, this thinker gave the example of a swarm of gnats to represent the unpredictable “cloud,” which he equated with the more orderly and steady “clock.” This thinker adapted Alfred Tarski’s thought in his application of a concept derived from the logical content of statements called truthlikeness or “verisimilitude.” A book by this thinker asserts that Plato’s idealized politics are “fundamentally identical” to totalitarianism in their morality in its first volume, (*) “The Spell of Plato.” This man, who referred to his philosophy as “critical rationalism,” distinguished scientific statements from non-scientific statements by their falsifiability. For 10 points, name this philosopher of science, the author of *The Open Society and its Enemies* and *The Logic of Scientific Discovery*.

ANSWER: Karl **Popper**

8. A character in this play is said to have “groped for trout in a peculiar river.” Another of this play’s characters claims death will cause the spirit “to reside in thrilling region of thick-ribbed ice” in its third act. When this play’s female lead is told “the law hath not been dead, though it has slept,” she responds “it is excellent to have a giant’s strength, but it is tyrannous to use it like a giant.” A subplot in this play concerns Abhorson’s reluctance to execute the drunken prisoner (*) Barnardine. This play’s villain ignores the advice of the wise Escalus and is tricked into having sex with his former fiancée Mariana in the dark. The plot of this play is set into motion when the Duke disguises himself as a friar and leaves Angelo in charge of Vienna. For 10 points, name this Shakespeare play in which Isabella fights for the life of her brother Claudio.

ANSWER: **Measure for Measure**

9. This man responded with “good luck with your asparagus” after earlier having been accused of “casting aspersions” on Louie Gohmert’s asparagus. This man decried the lack of frank conversations about race in America in a speech calling the U.S. a “nation of cowards.” This man became the first U.S. cabinet member to be held in (*) contempt of court following an operation in which Brian Terry was killed. In his highest post, this man was preceded by Michael Mukasey and eliminated mandatory minimum drug sentencing rules. Pending a Senate vote, this man will soon be replaced by Loretta Lynch. For 10 points, name this current United States Attorney General.

ANSWER: Eric **Holder**

10. Although they are not crystals, these materials can be produced in a process in which a shelf is used to create a temperature gradient between two materials' freezing points. That process is the Bridgman–Stockbarger technique, which is better at producing rarer forms of these materials than the Czochralski process. Quantum dots are composed of these materials and their potential energy cannot exceed the Schottky barrier. These materials possess regions where charge is relatively low called (*) depletion zones. Adding impurities to these materials produces the extrinsic type of them in a process called doping. These materials can be classified as either p-type or n-type and examples of them include gallium arsenide, germanium, and silicon. For 10 points, name these materials which conduct electricity at a level between conductors and insulators.

ANSWER: semiconductors

11. The narrator of this novel relates how a Miami heart surgeon once made a coat out of dozens of hamster skins and sent it to his high school crush. A character in this novel keeps an Audrey Hepburn scrapbook and is treated for her stutter by the speech therapist Sheila Salzman, who has an affair with her father. This novel's protagonist inherits his father's glove factory and moves to Old Rimrock with his wife, the beauty queen (*) Dawn, who later has an affair with Bill Orcutt. In this novel, the protagonist's daughter converts to Jainism and lives in squalor in the Newark factory district after protesting against the Vietnam War by setting off a bomb in a post office. For 10 points, name this novel in which Nathan Zuckerman learns about the life of Seymour "the Swede" Levov, written by Philip Roth.

ANSWER: American Pastoral

12. This substance forms a dew which dripped off Yggdrasil near a well inhabited by two swans. A boy who drowned in this substance while playing in a cellar was revived using a magic herb by Polyidus. This substance is associated with a man who saved the residents of Ceos from a Dog Star-caused plague and was chasing Eurydice when she was bitten by a snake. Sigmund bites off the tongue of a werewolf after she tries to lick this substance off his (*) face. Daedalus used an ant and some of this substance to thread a string through a seashell. This substance is associated with Aristeus and was put in a drugged cake which Aeneas used to put Cerberus to sleep. This substance was mixed with the blood of Kvasir to create the mead of poetry. For 10 points, name this substance that, like wax, is produced by bees.

ANSWER: honey

13. In this city, Thomas Moss, the owner of the Peoples Grocery, was lynched by a white mob, prompting resident Ida B. Wells to call for blacks to leave this city. Voting rights in this city were protected by the machine of "Boss" Crump. An event in this city led to the hasty implementation of the Poor People's Campaign and to a riot in Washington, D.C. faced by Mayor Walter Washington. During Henry Loeb's tenure as mayor of this city, Echol Cole and Robert Walker were accidentally crushed to death, leading to a strike of (*) sanitation workers. The speech "I've Been to the Mountaintop" was given in support of that strike in this city by a man who was shot the next day in the Lorraine Motel by James Earl Ray. For 10 points, name this city where Martin Luther King Jr. was assassinated, the largest city in Tennessee.

ANSWER: Memphis

14. A graph of the rate of catalysis with the strength of this interaction on the x-axis produces a characteristic "volcano curve." The reaction rate is first order in the degree of this process in the Eley–Rideal mechanism. Shape-selective catalysts are useful for their ability to undergo this process preferentially based on shape or size. That it cannot form more than a (*) single layer is one assumption when deriving an equation for the fractional coverage which quantifies the extent of this process. This process can be physical when caused by van der Waals forces or chemical when caused by covalent bonds. Materials which are good for this process are often porous like silica gel and zeolites because they have a high surface area at small scales. For 10 points, name this process in which molecules stick to a solid surface.

ANSWER: adsorption [or chemisorption or physisorption before "physical"; do not accept "absorption"]

15. In one scene in this film, a man in a tuxedo savagely beating a man in a varsity jacket is juxtaposed through cross cutting with four men in pastel shirts beating a man in a red jacket. The main character of this film is first seen in slow motion picking up dishes during its nearly three-minute long opening tracking shot, which takes the viewer through a brown and red lit nightclub. One scene in this film ends with a close-up on a paper bag of money after everyone in a robbery is shot but a character in this film, leaving him covered in blood in a white suit. “99 Luftballons” and (*) “Jessie’s Girl” play loudly in one scene in this film in which a character in a silver robe lights firecrackers and a cocaine heist is attempted. In the last scene of this film, the main character repeats the line “I am a star” to the mirror before taking out his giant penis. For 10 points, name this film directed by Paul Thomas Anderson that details the career of Dirk Diggler in the porn industry.

ANSWER: Boogie Nights

16. This thinker cited the example of a young fox learning from his parents to fear the scent of man in a chapter outlining “gestures” as the responses to stimuli and ultimately as the origin of language. This thinker divided human development into the imitation stage, the play stage, and the game stage. This thinker referred to the expectations for a person’s behavior based on the mores and beliefs of a society as the (*) “generalized other.” This thinker defined the unsocialized, impulsive self and the reflective self developed through interactions with others as the “I” and the “Me,” respectively. For 10 points, name this American sociologist and founder of symbolic interactionism, the author of *Mind, Self, and Society*.

ANSWER: George Herbert Mead

17. Riots broke out after one diplomat was called “a notorious ass” during this conflict in the Luxburg Affair. Ruy Barbosa led a “league” which gained support after the sinking of the *Rio Branco* and supported one side in this conflict. A victory in the Battle of Coronel in this conflict led to the Battle of the Falkland Islands where Admiral (*) Maximilian von Spee was killed. A different communiqué in this war was decoded by Room 40 and offered to “make war and peace together.” That note, sent to the government of Venustiano Carranza, also offered, “lost territory” in Texas and Arizona and proposed an alliance with Mexico. For 10 points, name this war, during which Zimmerman Telegram was received, fought between the Central Powers and the Allies.

ANSWER: World War I [or The Great War; or First World War]

18. Two characters in this story shudder at the idea of eating cream puffs so close to breakfast. The protagonist of this story is frightened by a woman with a face swollen with tears standing by a fire and tries desperately to leave her house. At the end of this story, the protagonist stammers “Isn’t life, isn’t life—” but cannot explain what she meant. The protagonist of this story is taken aback when the Godber’s man tells her of a carter named Scott who (*) died when he was thrown off his horse and hit the back of his head. At the beginning of this story, three men arrive to set up a marquee for the title event, which is held by the Sheridan family. For 10 points, name this Katherine Mansfield short story, in which Laura’s planning of the title festivity is interrupted by her neighbor’s death.

ANSWER: “The Garden Party”

19. Kuhlman et al. designed Top7 to undergo this process in a way not found in nature. One protein that assists this process has seven subunits in its cis and trans phases and has a very hydrophobic equatorial domain; that protein, GroEl, forms a complex with GroEs and ATP. Hydrophobic interactions are the major driving force of this process and it involves the formation of an intermediate called a (*) molten globule. This process occurred spontaneously after removal of urea from ribonuclease A in an experiment named for Anfinsen. In eukaryotes, Hsp60, Hsp70, and other chaperones assist this process that causes the formation of structures like beta barrels and alpha helices. For 10 points, name this process which certain macromolecules get their three-dimensional structure.

ANSWER: protein folding [prompt on answers involving the formation of secondary or tertiary structure]

20. A female composer from this country is most famous for her D major *Concertino* for flute and little piano pieces like “Scarf Dance.” Another composer from this country used “MIDI-Flute” in a work written at this country’s contemporary music center, IRCAM. A composer from this country wrote a sonata for flute, viola, and harp. The composer of the platinum-flute *Density 21.5* was born in this country. Another composer from this country wrote the flute solo (*) *Syrinx* and an orchestral work that begins with a solo flute chromatically wandering down from C-sharp to G, then back up. That composer from this country wrote a symphonic poem that includes “Play of the Waves,” as well as *Prelude to the Afternoon of a Faun* and “The Girl with the Flaxen Hair.” For 10 points, name this country home to Cécile Chaminade, Pierre Boulez, and Claude Debussy.

ANSWER: France

Bonuses

1. Name some Schubert songs. For 10 points each:

[10] This cheerful song gives its name to Schubert's piano quintet, because it was used in that work's variations movement. Its text uses fishing for the title animal as a metaphor for rape.

ANSWER: "The **Trout**" [or "Die **Forelle**"]

[10] This six-eight setting of a poem by Goethe uses the pianist's left hand to symbolize both the title object and the title girl's pounding heart. It dramatically builds up to the words "sein Kuß!" meaning "his kiss!"

ANSWER: "**Gretchen am Spinnrade**" [or "**Gretchen at the Spinning Wheel**"]

[10] This penultimate song in *Die schöne Müllerin* ends with the Miller resolving to commit suicide. It takes the form of a dialogue between the two title characters, who are the most important in the cycle.

ANSWER: "**Der Müller und der Bach**" [or "**The Miller and the Brook**"; accept translations with "brooklet" or "river" instead of "brook"]

2. This measure is the average of ionization energy and electron affinity according to one scale, and it is linear in the effective nuclear charge in the Allred-Rochow scale. For 10 points each:

[10] Name this measure first defined by Linus Pauling to quantify an atom's tendency to pull electrons to it when in a bond.

ANSWER: **electronegativity**

[10] Interestingly, it is this atom rather than fluorine which has the highest electronegativity according to the Mulliken scale and the Allen scale. This is the lightest element with a full p shell.

ANSWER: **neon**

[10] Pauling electronegativity increases going up and to the right. A notable exception is the "island" centered at this element caused by relativistic lowering of the energy of its inner s electrons.

ANSWER: **gold** [or **Au**]

3. The Soto School makes up the largest branch of this religious sect. For 10 points each:

[10] Name this sect of Buddhism founded by Bodhidharma whose members contemplate koans.

ANSWER: **Zen** Buddhism [prompt on "Chan Buddhism"]

[10] Like the *Gateless Gate*, this book compiles many koans of the Sòng Dynasty. Classics like "the Highest Meaning of the Holy Truths" and "Hsueh Fang's Grain of Rice" are included in this book.

ANSWER: The **Blue Cliff Record**

[10] Zen Buddhists participate in this type of meditation in which you sit and contemplate your self. People sometimes sit in a lotus or kneeling position while doing this activity.

ANSWER: **zazen** meditation

4. This character gets startled when he hears Miser Stevens' voice coming from another character's handkerchief. For 10 points each:

[10] Name this character, who makes a deal for seven years of prosperity with the mysterious Mr. Scratch. He is later defended in a trial by Daniel Webster.

ANSWER: **Jabez Stone**

[10] "The Devil and Daniel Webster" was written by this American author of the epic poem *John Brown's Body*.

ANSWER: Stephen Vincent **Benét**

[10] In "By the Waters of Babylon," John is able to travel to the Dead Places and touch metal because he has this occupation.

ANSWER: **priests**

5. This war began after a group called the "British Band" crossed the Mississippi. For 10 points each:

[10] Name this war which included the Battle of Stillman's Run and was won by Henry Dodge against a leader of the Sauk and Fox tribes.

ANSWER: **Black Hawk** War

[10] In this last battle of the Black Hawk War, Henry Dodge's forces massacred fleeing warriors who were attempting to cross the Mississippi on rafts.

ANSWER: Battle of **Bad Axe** [accept **Bad Axe** Massacre]

[10] One of these vehicles, *The Warrior*, was used during the Battle of Bad Axe. These vehicles were the subject of *Gibbons v. Ogden*, and they were first developed by Robert Fulton.

ANSWER: **steamboats** [prompt on answers like "boats" or "ships"]

6. This collection includes the poem "The Stabbed Dove and the Fountain." For 10 points each:

[10] Name this poetry collection subtitled "Poems of Peace and War," which was published in 1918. Many of its poems are written in free verse and feature unusual typography.

ANSWER: **Calligrammes**; *Poems of Peace and War*

[10] *Calligrammes* was a collection by this French poet, who included "Zone" in his collection *Alcools*. François Poulenc adapted his play *The Breasts of Tiresias* into a 1947 opera.

ANSWER: Guillaume **Apollinaire**

[10] Apollinaire also wrote the heavily censored novel *The Eleven Thousand Rods*, which is in this literary genre. Another novel in this genre is the Marquis de Sade's *120 Days of Sodom*.

ANSWER: **erotic** novel [or **erotica** or **pornographic** novel]

7. This theorem is more or less equivalent to the Heine–Borel theorem, since it states that a subset of \mathbb{R}^n is sequentially compact if and only if it is closed and bounded. For 10 points each:

[10] Name this theorem, which states that any bounded sequence in \mathbb{R}^n has a convergent subsequence.

ANSWER: **Bolzano–Weierstrass** theorem

[10] Karl Weierstrass formulated many of the basic concepts of analysis, including the first good definition of this property of a function. If a function has this property at a point, the limit of the function's values as you get closer and closer to that point is the same as its value at that point.

ANSWER: **continuity** [or word forms like **continuous**]

[10] Stone greatly generalized another of Weierstrass's theorems, which says that for any continuous function on a closed interval, it is possible to do this. Bernstein names a set of objects that can be used to actually do this task.

ANSWER: uniformly **approximate it by a polynomial** [accept equivalents that mention both **approximation** and **polynomial**s; prompt on just "approximation"]

8. There are lots of terrible foods in the world. Name some things about them. For 10 points each:

[10] During Iceland's festival of *Thorrablot*, people indulge in a terrible ammonia-flavored food called *hakarl*, which is made from the meat of this animal. Parts of these animals provide the main ingredient in a popular but controversial Chinese soup.

ANSWER: **sharks**

[10] If you ever find yourself in the Philippines, you can get your hands on *balut*, which consists of a partially developed embryo of one of these animals. The livers of these animals are used to make *foie gras*.

ANSWER: **ducks** [or **geese**]

[10] *Pane carasau* is a traditional flatbread from this Mediterranean island. It undoubtedly tastes better than casu marzu, which is a sheep's milk cheese infested with live maggots that is native to this island.

ANSWER: **Sardinia**

9. This man's government displaced thousands of people in Operation Bonanza during a war against the National Resistance Army, a group led by Yoweri Museveni. For 10 points each:

[10] Name this man whose troops committed the Ombaci Massacre during a Bush War in the 1980s. This originator of the Move to the Left policy was overthrown in 1971 but regained power eight years later.

ANSWER: [Apolo] Milton **Obote**

[10] Obote was overthrown by this man, who himself was overthrown by Tanzanian forces in 1979. This alleged cannibal also expelled all Asians from Uganda.

ANSWER: Idi **Amin**

[10] Obote issued this document as part of his "Move to the Left." This document put emphasis on increased production, wealth, and education for lower-class Ugandans as part of the Work For Progress campaign.

ANSWER: **Common Man's Charter**

10. A book from this philosophical movement posits that objects have been replaced by their images. For 10 points each:

[10] Name this school of thought whose prominent scholars include Jean Baudrillard, the author of *Simulacra and Simulation*. In one book, Jean-François Lyotard defined this type of "condition" as disbelief of metanarratives.

ANSWER: **postmodernism**

[10] The third chapter of *The Postmodern Condition* is a discussion of these constructs. Wittgenstein coined the term for these constructs, giving the example of a builder who calls out the words "block," "pillar," "slab," and "beam" to an assistant who then brings him the corresponding stone.

ANSWER: **language-games** [or *sprachspiel*]

[10] This American cultural Marxist posited the replacement of parody with pastiche and a loss of historicity in his magnum opus *Postmodernism, the Cultural Logic of Late Capitalism*.

ANSWER: Fredric **Jameson**

11. This former rugby player at Blackheath eventually marries Mary Morstan at the end of one novel in which he appears. For 10 points each:

[10] Name this narrator of a series of stories published in 1892, including one in which Count Von Kramm enlists his partner's help in recovering a valuable photograph.

ANSWER: Dr. **John Watson**

[10] Dr. John Watson is the sidekick and biographer of Sherlock Holmes, undoubtedly the most famous creation of this English author of *A Study in Scarlet*.

ANSWER: Arthur Conan **Doyle**

[10] In this Sherlock Holmes story, Mrs. St. Clair enlists the duo's help in finding her lost husband Neville. As it turned out, he had been living a double life in an opium den as the title figure, a beggar named Hugh Boone.

ANSWER: "The **Man with the Twisted Lip**"

12. A part of this sculpture depicts Paolo reaching out fruitlessly to Francesca. For 10 points each:

[10] Identify this large sculpture. It was continually altered for almost four decades and many of its parts later became separate sculptures.

ANSWER: *The **Gates of Hell*** [or *La **Porte de l'Enfer***]

[10] In a section of *The Gates of Hell*, Paolo wraps his arm around Francesca's rear as they sit on a rock performing this action. Gustav Klimt's most famous painting depicts two people performing this action.

ANSWER: **kissing**

[10] This sculpture was derived from a bas-relief on the lower left pilaster of *The Gates of Hell* and was alternately titled *She Who Was Once the Helmet-Maker's Beautiful Wife*. The title geriatric slumps over on a rock and holds her right hand behind her back in this work.

ANSWER: *The **Old Courtesan***

13. The leader of this uprising used a burning walnut to pretend to breath fire and called himself "King Antiochus." For 10 points each:

[10] Name this rebellion that broke out on large estates and was led by a Syrian magician named Eunus.

ANSWER: **First Servile** War [prompt on “Servile War” or “Slave Revolt”]

[10] The First Servile War occurred on this island, which Spartacus’s men attempted to escape to during the Third Servile War. Marcus Marcellus once laid siege to this island’s city of Syracuse.

ANSWER: **Sicily**

[10] Early in his revolt, Spartacus’s followers hid out at this location. At a battle on this place, the slaves used vines to grapple down a cliff and defeat Claudius Glaber’s army.

ANSWER: Mount **Vesuvius** [or Mount **Vesuvio**]

14. Some of the participants in this experiment developed permanent speech disorders later in life. For 10 points each:

[10] Name this study conducted by Wendell Johnson at the University of Iowa, in which he took two groups of orphans and gave positive speech therapy to one and negative speech therapy to the other.

ANSWER: **Monster** Study

[10] This later American psychologist was well known for performing horrible experiments on rhesus monkeys, using devices like the “rape rack.”

ANSWER: Harry **Harlow**

[10] Harlow coined the term for this device of his, also called a “vertical chamber apparatus.” It isolated individual monkeys from outside contact and had a pyramidal top to prevent them from hanging or doing any number of normal monkey activities.

ANSWER: the “**pit of despair**”

15. This substance was theorized by Fritz Zwicky, who noticed that the mass of all the stars in the Coma galaxy cluster only made up one percent of the necessary mass. For 10 points each:

[10] Name this substance thought to make up 26 percent of the universe’s matter-energy composition.

ANSWER: **dark matter**

[10] One component of dark matter may be the axion, which was predicted by this theory which was created to solve the strong CP problem.

ANSWER: **Peccei–Quinn** theory

[10] An alternative to dark matter is this theory which proposes that the modification F equals m times μ times a is needed to explain galactic rotation curves. The function μ approaches one for large accelerations, but leads to agreement with astronomical observations for small accelerations.

ANSWER: **MOND** [or **modified Newtonian dynamics**]

16. Answer some questions about Reims Cathedral. For 10 points each:

[10] The cathedral has the pointed arches and flying buttresses that are characteristic of this style that was pioneered by Abbot Suger.

ANSWER: **Gothic** [accept any more specific type of **Gothic**]

[10] The West end of the cathedral unusually has two of these features, surrounded by a mass of statues, instead of one and a sculpted tympanum. They are often named for Saint Catherine, and are the same shape as oculi.

ANSWER: **rose windows**

[10] Many of the most famous sculptures from Reims depict these figures, including a “smiling” one. Sculptures of these figures also decorate the buttresses of the nave.

ANSWER: **angels** [or **anges**; accept *The **Smiling Angel*** or *L’**Ange au sourire***]

17. This experiment successfully created sugars and amino acids from water, methane, ammonia, and hydrogen cyanide. For 10 points each:

[10] Name this doubly-eponymous experiment which showed that it might be possible to create life from the conditions of early Earth.

ANSWER: Miller–Urey experiment [accept names in either order]

[10] Juan Oro performed a follow-up experiment to the Miller–Urey experiment showing that reacting ammonia and water with hydrogen cyanide could make amino acids and this compound.

ANSWER: adenine

[10] The Miller–Urey experiment made amino acids with this property. Except for glycine, most amino acids in biology do not have this property, and instead are exclusively left handed.

ANSWER: racemic

18. Chapters of these societies were called *venditas*, met in *baraccas* and were led by masters who carried symbolic hatchets. For 10 points each:

[10] Give this name for the groups of Italian revolutionaries of the early 19th century which were eventually subsumed by Giuseppe Mazzini's Young Italy.

ANSWER: Carbonari

[10] The ideals of the Carbonari and Young Italy influenced this city's 1848 Five Days uprising, which began with a boycott on Austrian tobacco.

ANSWER: Milan [or Milano]

[10] The goal of Italian unification was finally achieved with the help of this "hero of two worlds," a general who led the Expedition of a Thousand on behalf of King Victor Emmanuel II.

ANSWER: Giuseppe Garibaldi

19. The temple Esagila was dedicated to this deity, who was tasked with defeating Tiamat. For 10 points each:

[10] Name this god, the focus of the *Enuma Elish*, who supplanted Ea and Enlil as the head of the Babylonian pantheon.

ANSWER: Marduk

[10] Tiamat gave this item to Kingu to use as a breastplate in his battle with Marduk, who then claimed it. This clay object is a legal document that confers authority over the universe.

ANSWER: Tablet of Destinies [or Tablets of Destiny; or Dup Shimati]

[10] This Mesopotamian god of wisdom is the son of Marduk. He rides the dragon-like mušhuššu and writes the destiny of every human on sacred tablets.

ANSWER: Nabu [or Nebo]

20. A novel by this author takes its name from a line in Derek Walcott's poem, "The Swamp," but was originally titled *Ballad of the Barmaid*. For 10 points each:

[10] Name this Kenyan author who was arrested the same year he published *Petals of Blood*. He also wrote a novel about Mugo, who betrayed Kihika: *A Grain of Wheat*.

ANSWER: Ngũgĩ wa Thiong'o

[10] This character from *Petals of Blood* who lost his leg in the Mau Mau Rebellion owns a shop that employs the beautiful Wanja. His beloved donkey is killed when it is struck by a crashing plane. Poor guy.

ANSWER: Abdulla

[10] After publishing his essay "Decolonizing the Mind," Ngũgĩ refused to write any of his works in this language, instead sticking to Gikuyu. Nuruddin Farah and Peter Abrahams are other African writers who write in this language.

ANSWER: English