### ACF Fall 2015

Edited by Richard Yu, Gaurav Kandlikar, Eddie Kim, Dylan Minarik, Ryan Rosenberg, Andrew Wang, and Nathan Weiser.

Packet by *University of Georgia A* (Evan Knox, Kailyn LaPorte, Bhanodai Pippala, and Julia Tallant) and *University of California, Berkeley A* (James Wang, Niki Peters, John Gleb, and Lukas Vlahos)

## **Tossups**

- 1. Most knowledge about this city is derived from a Bernardino de Sahagun text held at a library in Florence. This city had districts called "calpulli." It was surrounded by floating farms called chinampas. The ruins of this city's destroyed religious center are now covered by the Zocalo. Captives would be paraded into this city after successful "Flower Wars." An invading army fled this city in La Noche Triste. This city formed a triple alliance with Texcoco and Tlacopan and was legendarily founded on a site where an eagle was seen perched on a cactus. Hernando Cortez conquered, for 10 points, what city ruled by emperors named Montezuma, the capitol of the Aztec Empire?
  - ANSWER: <u>Tenochtitlan</u> [or Mexico-<u>Tenochtitlan</u>; do not accept or prompt on Mexico City]
- 2. A play by this author features a song sung to a baby about a "giant horse / who didn't want the water." The settings of that play by this man are sparsely described and include a yellow room and a cave. After inheriting a large amount of money, Angustias is able to find a suitor in a play by this author. One play by this author sees the Groom killed by the only named character, Leonardo. In another play by this author, Adela and Martirio disobey the title character in order to pursue the love of Pepe el Romano. For 10 points, name this Spanish author of *Blood Wedding* and *The House of Bernarda Alba*. ANSWER: Federico Garcia Lorca
- 3. This composer wrote a ballet whose finale begins with a lyrical horn solo in 3/2 ["three two"] time. The title character is captured while plucking some golden apples in this composer's ballet featuring a sorcerer who is put to sleep by a solo bassoon-introduced lullaby shortly after he and his subjects are lulled into a frenzied "Infernal Dance." In another of his ballets, Part I, titled "The Adoration of the Earth," begins with an unusually high-pitched unaccompanied bassoon solo. A young girl is sacrificed at the end of that ballet, which sparked a riot at its 1913 premiere. For 10 points, name this composer of *The Firebird* and *The Rite of Spring*.

ANSWER: Igor Stravinsky [or Igor Fyodorovich Stravinsky]

4. This process is made more efficient by a sliding clamp protein that prevents its central enzyme from dissociating from its substrate. In prokaryotes this process begins at *ori* sites. The mechanism of this process was determined by growing *E. coli* in a nitrogen-15 medium. This process was shown to be semiconservative by Meselson and Stahl and cannot occur without a primer. Okazaki fragments form on the lagging strand during this process since it only occurs in the "5-prime" to "3-prime" direction. This process that occurs during the S phase requires enzymes like ligase, helicase and DNA polymerase. For 10 points, name this process which creates a copy of the genome.

ANSWER: **DNA synthesis** [or **DNA replication**; or just **synthesis** or **replication** after "DNA" has been read]

5. Ross Douthat explained this man's popularity in America in a *New York Times* opinion piece titled "In Search of the [this man] Effect." Paul Gosar boycotted one of this man's speeches because this man supported Barack Obama's climate change initiative. He delighted Bernie Sanders by mentioning Dorothy Day alongside Thomas Merton, Abraham Lincoln and Martin Luther King in a speech. John Boehner resigned as Speaker of the House the day after he cried through portions of this man's speech. He's not a Republican presidential candidate, but this man secretly met with Kim Davis. For 10 points, name this man who made a much-publicized visit to the United States in the summer of 2015, the current Pope.

ANSWER: Pope **Francis** [or Jorge Mario **Bergoglio**]

- 6. During evening prayer services on this holiday, many married men wear a robe called a kittel that is otherwise used as a funeral shroud. One minor tradition on this holiday is the reading of the entire Book of Jonah during the afternoon service. Oral tradition dictates that people may not wash themselves or have sex while observing this holiday. One important prayer during this holiday is recited in Aramaic rather than the usual Hebrew; that is the Kol Nidre. It is observed with a 25-hour fast and special synagogue services. For 10 points, name this Day of Atonement, the holiest day of the year in Judaism. ANSWER: Yom Kippur
- 7. At the left of this painting, a red-robed figure with a sheathed sword has his left hand on his hip and is using his right hand to hold up a staff, which is wrapped with snakes. A possible companion to this painting shows a woman holding a halberd standing next to a centaur. The right foreground of this painting shows a blue-skinned man grabing a woman whose mouth is spilling wildflowers; that is this painting's depiction of Chloris and Zephyrus. The top center of this painting shows Cupid aiming towards the three Graces, who are dancing next to Venus in a grove of oranges. For 10 points, name this Botticelli painting sometimes called *Allegory of Spring*.

ANSWER: La <u>Primavera</u> [accept <u>Allegory of Spring</u> until "Allegory"]

8. A theorem states that any positive number can be represented as the sum of two non-consecutive elements from this set of numbers. These numbers, which are the subject of Carmichael's Theorem, have a closed-form solution known as Binet's Formula. That formula includes the number "one minus the square root of five over two", which is known as phi or the golden ratio. They are defined as a recurrence relation where the nth value equals the sum of the "n-minus-1" and "n-minus-2" values. For 10 points, name these members of a sequence named after an Italian mathematician, the first five of which are 1, 1, 2, 3, and 5.

ANSWER: Fibonacci numbers

9. The songs of the bard Demodocus drive this hero to tears some time after he uses Ino's magic veil to reach the island of Scheria and enjoy the hospitality of the queen Arete. Ajax refuses to speak to this hero on a journey to the underworld during which Tiresias advises him to avoid eating the cattle of Helios. This hero is forced to live with Calypso for seven years in part for incurring the wrath of Poseidon by introducing himself as "Nobody" and driving a wooden stake through the eye of the cyclops Polyphemus. For 10 points, name this father of Telemachus who reunites with his wife Penelope after a ten-year voyage home from Troy.

ANSWER: Odysseus [or Ulysses]

- 10. A group of athletes of this ethnicity that dominated the early American Olympics track-and-field squad was nicknamed this people's "Whales." Immigrants of this ethnicity made up the majority of the Dead Rabbits gang and faced off against each other in the Orange riots. These people settled in the Hell's Kitchen neighborhood and were discriminated by signs saying they "need not apply." These people arrived in America on "coffin ships" and came to have the largest presence of any nationality in Boston. For 10 points, name this ethnic group whose contribution to America is recognized on St. Patrick's Day. ANSWER: the <a href="Irish">Irish</a> [or <a href="I
- 11. The fourth movement of this composer's Keyboard suite in D minor is his namesake "Sarabande." This composer called for a chorus of youths, a chorus of virgins, and a chorus of Israelites to sing "See, the conqu'ring hero comes!" in *Judas Maccabaeus*. This composer began Part III of his piece *Solomon* with a sinfonia titled "The Arrival of the Queen of Sheba." He interspersed settings of the words "for the Lord God Omnipotent reigneth" in a section of a piece that uses arias such as "I know that my Redeemer liveth" to depict the life of Jesus Christ. For 10 points, name this German-born English composer, whose oratorio *Messiah* includes the "Hallelujah" chorus.

ANSWER: George Frideric Handel [or Georg Friedrich Händel]

12. A man who claimed that this philosopher "is not interested in madness" is criticized in an essay by Jacques Derrida, who titled that essay for a concept this thinker created. Antoine Arnauld pointed out a circular argument in this philosopher's discussion of clear and distinct perceptions. This author attempts to consider all external things as traps created by an evil, deceiving demon. This philosopher's most famous text sets out to demolish his false opinions, like the idea that knowledge comes from the senses. For 10 points name this author of the *Meditations on First Philosophy* and *Discourse on Method* who wrote "cogito ergo sum".

ANSWER: René Descartes

13. Jean Guitton was the leader of a group that opposed troops led by this man in one battle. This man oversaw negotiations that led to the Treaty of Stettin, which allied his country with Sweden during the Thirty Years War. This man rose to power after the death of Concino Concini. Marie de Medici was exiled after an attempt to remove this man in an event called the Day of the Dupes. In the Peace of Alais, signed after the Siege of La Rochelle, this man stripped away the rights of the Huguenots. He was succeeded in his highest position by Cardinal Mazarin. For 10 points, name this Chief Minister of France under Louis XIII.

ANSWER: Cardinal Richelieu

14. A formula which describes this phenomenon is obtained by approximating the Kirchhoff integral theorem with Kirchhoff's boundary conditions. The angular resolution of this phenomenon can be estimated by the formula "1.22 times lambda over D", which is the Rayleigh criterion. This phenomenon occurs due to every point on a wave front acting as a source for secondary spherical waves which interfere with each other. This phenomenon is explained by Huygens' principle. With interference, it causes the dark fringes that appear when light passes through a slit. For 10 points, name this phenomenon in which light bends around an obstacle.

ANSWER: diffraction

15. A character in this novel utters phrases like "Never put off till tomorrow the fun you can have today" and "One cubic centimeter cures ten gloomy sentiments" while sleeping. In this novel, a crowd chants "We want the whip" after the self-flagellation of a man living in an air-lighthouse is filmed. On a trip to New Mexico, this novel's protagonist meets Linda and her son, with whom the protagonist returns to London. In this novel, Helmholtz Watson and Bernard Marx are banished to remote islands by Mustapha Mond. This novel's character John the Savage does not enjoy the use of soma. For 10 points, name this dystopian novel by Aldous Huxley.

ANSWER: Brave New World

16. A war fought over the succession of this person ended with the Battle of Toro, and this person was able to come to power after Alfonso, the Prince of Asturias, died of the plague. An institution founded by this person was responsible for carrying out several auto-da-fè ceremonies. With the assistance of Tomas de Torquemada, this daughter of John II issued the Alhambra Decree, which expelled all of the Jews from her country. With her husband, this woman funded the Atlantic voyages of Christopher Columbus. For 10 points, name this female member of the "Catholic Monarchs," a Queen of Castile who was the wife of Ferdinand of Aragon.

ANSWER: <u>Isabella I</u> [or <u>Isabella of Castile</u> before mention]

17. Activity is used as an effective form of this quantity for non-ideal systems. Peak size in HPLC is proportional to this value. The magnitude of properties dependent on this quantity is proportional to this quantity's product with the van't Hoff factor. This quantity is conventionally represented using square brackets. This non-partial pressure quantity is used along with the stoichiometric coefficient to define equilibrium constants. Colligative properties are dependent on this quantity, which can be found via a titration. For 10 points, name this quantity which can be measured in molarity which for a solution refers to how much solute is in some amount of solvent.

ANSWER: **concentration** [prompt on **molarity** or **molality**]

18. A character in this play says the dead are "weaned away" from Earth in a monologue that includes the line "there's something way down deep that's eternal about every human being." In this play, Joe Crowell wins a scholarship but dies during World War I. Each act of this play includes a singing of "Blessed Be the Tie That Binds." A character in this play asks "do any human beings ever realize life while they live it" after re-living her 12th birthday. George Gibbs and Emily Webb are married by a character who arranges the set and explains the plot of this play, the Stage Manager. For 10 points, name this play about Grover's Corner written by Thornton Wilder.

ANSWER: Our Town

19. The Shah Deniz natural gas field is located underneath the southwestern portion of this body of water, and a proposed gas pipeline will run underneath this body of water to a city named after Saparmurat Niyazov. The proposed Trans-Adriatic pipeline will connect this body of water to southern Europe. Though not the Aral Sea, the Amu Darya River once flowed into this body of water. Oil extracted from beneath this body of water often travels by pipeline to Ceyhan and Tbilisi from the city of Baku, which is located on this body of water. For 10 points, name this large inland sea, which is fed by the Volga River and borders such countries as Turkmenistan, Azerbaijan, and Iran.

ANSWER: Caspian Sea

20. Two poems contained in this novel use the metaphor of a locust's shell for a woman's virginity. When his romantic intentions are rebuffed by a young woman, a man in this novel sleeps with the woman's brother instead. A chapter of this novel titled "Vanished into the Clouds" is completely blank, signifying the death of the title character. The title character of this novel is exiled by the emperor, who is secretly his illegitimate son with his stepmother Fujitsubo. The title character marries Princess Aoi in the first chapter of this Heian-period novel. For 10 points, name this early Japanese novel, written by Lady Murasaki Shikibu.

ANSWER: <u>Tale of Genji</u> [or <u>Genji Monogatari</u>]

## Extra

Frederick Muhlenberg was stabbed for casting the deciding vote on a document named for this politician. Opponents of this politician chanted "damn everyone who won't damn [this politician]." He served as Minister to Spain during the American Revolution. This politician negotiated a document that forced a nation to vacate forts at Mackinac and Niagara. He contributed five articles to the Federalist Papers, much fewer than James Madison and Alexander Hamilton. This Founding Father names a 1795 treaty that normalized relations between the United States and the United Kingdom. For 10 points, name this first Chief Justice of the United States Supreme Court.

ANSWER: John Jay [accept Jay's Treaty]

This region first became a crown colony after the Fraser Canyon Gold Rush. Disputes over the control of this region led to Spain seizing British ships in the Nootka Crisis and a bloodless conflict known as the "Pig War." Canada's first female Prime Minister, Kim Campbell, hailed from this province. Franz Boas studied the potlatch culture of the Kwakiutl nation in this province, whose other First Nations are known for their totem poles. This province planned to import snow to combat the effects of El Nino during the 2010 Winter Olympics. For 10 points, name this Canadian province, the home of Vancouver.

ANSWER: British Columbia

### **Bonuses**

1. The first movement of this composer's Symphony No. 4 introduces a theme made up of this composer's namesake rhythm: two quarter notes, followed by a triplet of quarter notes. For 10 points each:

[10] Name this composer, who edited his *Romantic* Symphony to include a scherzo that depicts a hunting scene.

ANSWER: Anton Bruckner

[10] In the 19th century, new trends of program music were favored by composers such as Bruckner, Richard Wagner, and this composer of four *Mephisto Waltzes* and the tone poem *Les préludes*.

ANSWER: Franz <u>Liszt</u> [or <u>Liszt</u> Ferenc]

[10] Those trends were opposed by this more conservative composer of a namesake lullaby, or "Cradle Song," and a Symphony No. 1 that includes a theme strongly paralleling Ludwig van Beethoven's "Ode to Joy" theme.

ANSWER: Johannes Brahms

2. The speaker of this poem observes that "The grave's a fine and private place / But none, I think, do there embrace." For 10 point each:

[10] Name this poem whose speaker tells his love interest that his "vegetable love should grow / Vaster than empires, and more slow" if he did not always hear "Time's winged chariot hurrying near."

ANSWER: "To His Coy Mistress"

[10] This poet of a series of "Mower poems" wrote "To His Coy Mistress."

ANSWER: Andrew Marvell

[10] This American poet described lying "face down beneath the sun" in the poem "You, Andrew Marvell". This author wrote that "A poem should not mean / But be" in "Ars Poetica."

ANSWER: Archibald **MacLeish** 

3. These entities each have two planar nodes. For 10 points each:

[10] Name this set of five entities known as "x-y", "x-z", "y-z", "z-squared", and "x-squared-y-squared". They have an azimuthal quantum number of two, which is one higher than that of p orbitals.

ANSWER: **d** orbitals

[10] The d orbitals are partially filled in this block of metals found in the middle of the periodic table. They include gold and zinc.

ANSWER: **transition metals** [do not prompt on "metals"]

[10] The splitting of d orbitals due to ligands is the central idea of this theory, which was combined with MO theory to develop ligand field theory.

ANSWER: **<u>crystal field</u>** theory [or **<u>CFT</u>**]

- 4. Answer the following about everyone's favorite mid-19th century politician, Lewis Cass, for 10 points each.
  - [10] While running for president in 1848, Cass popularized this political belief that recently admitted states should vote on whether or not to allow slavery.

ANSWER: popular sovereignty

[10] This politician borrowed Cass' idea of popular sovereignty while drafting the Kansas-Nebraska Act. He had a notable series of debates with Abraham Lincoln and later lost to Lincoln as a Democrat in the 1860 Presidential election.

ANSWER: Stephen A. **Douglas** [or Stephen Arnold **Douglas**]

[10] As James Buchanan's Secretary of State, Cass tried to protect American filibusters in Latin America, including this "grey-eyed man of destiny" who briefly turned Nicaragua into his own personal dictatorship.

ANSWER: William Walker

- 5. Shukumar and Shoba try to fix their failing marriage during a series of power outages in this collection's story "A Temporary Matter." For 10 points each:
  - [10] Name this short story collection whose stories explore the theme of Indian-American identity. The tour guide Mr. Kapasi develops a crush on Mrs. Das in its title story.

ANSWER: *Interpreter of Maladies* 

[10] This female Indian American author of the novels *The Namesake* and *The Lowland* wrote *Interpreter of Maladies*.

ANSWER: Jhumpa Lahiri [or Nilanjana Sudeshna Lahiri]

[10] Miranda has an affair with a married Indian man named Dev in this story from *Interpreter of Maladies*. It is titled for a compliment Dev gives Miranda that is later repeated by a little boy Miranda is babysitting.

ANSWER: "Sexy"

- 6. Two of these devices placed end to end form a chaotic system. For 10 points each:
  - [10] Name this device which is equivalent to a mass swinging on a spring.

ANSWER: pendulum

[10] Léon Foucault names a pendulum whose plane of oscillation rotates along with this entity, which was a simple proof that this body rotates.

ANSWER: the Earth

[10] For small oscillations, the frequency of a pendulum is equal to the square root of this function of the acceleration due to gravity and the length of the pendulum. Use g and L as your variables.

ANSWER: g over L [or g divided by L; accept "square root of g over L"]

- 7. A celestial and a terrestrial globe appear in this artist's *The Astronomer* and *The Geographer*, respectively. For 10 points each:
  - [10] Name this Dutch painter who showed a girl wearing a blue headband and the title jewelry in *Girl With a Pearl Earring*.

ANSWER: Johannes Vermeer

[10] Vermeer painted a series of cityscapes of this Dutch city from which he hailed. One of those paintings shows the spire of the Nieuwe Kerk ["NEW-uh kirk"].

Answer: **Delft** [or *View of Delft*]

[10] Vermeer was a master of this type of painting popular among Dutch Golden Age artists. Jan Steen was another master of these paintings, many of which show indoor domestic scenes.

Answer: **genre** paintings [or **genre** art]

8. This structure was constructed in 1961 to prevent emigration and stood until 1989. For 10 points each: [10] Name this structure which marked the border between NATO and Warsaw Pact-aligned sections of a German city. Ronald Reagan famously demanded that Gorbachev tear this structure down in a 1987 speech.

ANSWER: **Berlin Wall** [or **Berliner Mauer**]

[10] Another institution aimed at preventing East German emigration was this state security service and secret police of East Germany. It operated with the assistance of many civilian informants.

ANSWER: <u>Stasi</u> [or <u>Ministerium für Staatssicherheit</u> or <u>MfS</u> or <u>Ministry for State Security</u> or <u>Staatssicherheitsdienst</u> or <u>SSD</u>]

[10] This famed Berlin landmark, commissioned by Frederick Wilhelm II in 1791, stood directly in front of the Berlin Wall and was prominently featured in news coverage of the Fall of the Wall.

ANSWER: **Brandenburg Gate** [or **Branderburger Tor**]

9. The protagonist of this novel writes many letters addressed to God and her long-lost sister Nettie. For 10 points each:

[10] Name this novel in which Celie comes to escape her abusive husband "Mister" after falling in love with his mistress, a nightclub singer named Shug Avery.

ANSWER: The **Color Purple** 

[10] This American author of Meridian won the Pulitzer Prize for The Color Purple.

ANSWER: Alice Walker

[10] Alice Walker helped rescue this author's work from obscurity by publishing an essay titled "Looking for [this author]." Walker also wrote about her search for this author's unmarked grave.

ANSWER: Zora Neale **Hurston** 

10. A popular idiom describes this man's mother moving three times to find the right environment in which to raise him. For 10 points each:

[10] Name this ancient Chinese scholar who argued that humans are innately good. He is called the "second sage" of a humanistic philosophical school.

ANSWER: Mencius [or Mengzi; or Meng Tzu; or Meng Ke]

[10] Mencius was a follower of this other Chinese philosopher, whose sayings are collected in the *Analects*.

ANSWER: Confucius [or Kongzi; or Kong Fuzi]

[10] In his namesake book, Mencius considers a child who is about to be injured in this way. He suggests that human nature, not personal benefit, would compel people to save that child from this form of injury. ANSWER: <a href="falling">falling</a> into a well [or obvious equivalents that describe falling into a well; prompt on "drowning"]

11. This author wrote that "each man kills the thing he loves," "the coward does it with a kiss / the brave man with a sword" in a poem he wrote while imprisoned. For 10 points each:

[10] Name this author of "The Ballad of Reading Gaol" ["ballad of redding jail"].

ANSWER: Oscar Wilde

[10] In an Oscar Wilde novel, Basil Hallward creates a picture of this character that ages as this character sins.

ANSWER: **<u>Dorian Gray</u>** [or *The Picture of* **<u>Dorian Gray</u>**]

[10] Wilde described his relationship with Lord Alfred Douglas in this letter composed while Wilde was imprisoned at Reading Gaol. Its name derives from a passage in Psalm 130.

ANSWER: "De Profundis"

12. This god pierces himself with his own spear Gungnir and hangs from the world tree Yggdrasil for nine days and nights. For 10 points each:

[10] Name this head of the Norse pantheon who perpetually quests for wisdom.

ANSWER: Odin [or Wotan]

[10] Disguised as the workman Bolverk, Odin infiltrates one of these places to steal Suttung's wisdom-bestowing mead of poetry.

ANSWER: mountain [or bjorg; or Hnitbjorg]

[10] In their roles as personifications of thought and memory, two of these animals named Huginn and Muninn ferry news of the world to Odin each day.

ANSWER: ravens [do not accept "crow"]

13. These rocks are deposited in layers of strata after being moved around by erosion. For 10 points each:

[10] Name this type of rock which includes quartzes and sandstone. It gets its name from the small eroded particles that precipitate out of a solution.

ANSWER: sedimentary rock

[10] Eroded limestone is responsible for the formation of these landscapes. They often include cave systems and underground rivers and are named after a plateau in northeast Italy.

ANSWER: **Karst** topography

[10] This law is used extensively when dating sedimentary rocks. It states that the oldest rocks are always found on the strata closest to the bottom of the sample.

ANSWER: law of superposition

14. Relatives of the Habsburg emperor Franz Joseph had an unfortunate proclivity for dying tragically. For 10 points each:

[10] In this incident, Franz Joseph's son Prince Rudolf and his mistress died, allegedly due to a joint suicide. It takes its name from the Vienna Woods town where the suicides took place.

ANSWER: Mayerling Incident

[10] Rudolf's death, as well as the death of Franz Joseph's brother Karl Ludwig, led to this Archduke becoming the heir to the Austro-Hungarian throne. His assassination in Sarajevo led to the beginning of World War I.

ANSWER: Archduke Franz Ferdinand

[10] Franz Ferdinand's killer, Gavrilo Princip, was part of a conspiracy led by members of this secret society of Slavic nationalists. They earlier killed the Serbian King Alexander I in the May Coup.

ANSWER: The <u>Black Hand</u> [or <u>Crna Ruka</u>; or <u>Union or Death</u>! or <u>Ujedinjenje ili Smrt</u>!; do not accept "National Defense" or "Narodna Odbrana"]

15. Answer the following about a religion that combines Biblical elements with pan-African beliefs. For 10 points each:

[10] Adherents of this religion often follow a dietary code known as ital. Western society is labeled as "Babylon" in this religion, which has many followers in Jamaica.

ANSWER: Rastafarianism

[10] Rastafarians venerate several historical figures, including Marcus Garvey and this Emperor of Ethiopia, whom they consider to be the Messiah.

ANSWER: Haile Selassie I

[10] Haile Selassie's birthday is one of the several days where Rastafari adherents have a holy "grounation" day and perform this sacred action. Rastafarians often use "wisdom chalices" to assist in performing this action.

ANSWER: **smoking marijuana** [or obvious equivalents]

16. These cells are often obtained from bone marrow tissue and blood. For 10 points each:

[10] Name these undifferentiated cells. Controversy exists over the use of cells of this type taken from embryos.

ANSWER: <u>stem</u> cells [accept more specific answers like <u>pluripotent stem cell</u>s or <u>embryonic stem cell</u>s; prompt on "ES cells"; prompt on "IPS cells"]

[10] One reason embryonic stem cells are studied is because they have this ability to differentiate into tissue in any of the three germ layers. Shinya Yamanaka won the 2012 Nobel for inducing this property into adult cells.

ANSWER: **pluripotent** [accept word forms like **pluripotency**]

[10] Pluripotent stem cells cannot form cells of this structure, unlike totipotent stem cells. Along with the umbilical cord, this structure links the fetus to the uterine wall.

ANSWER: placenta

17. The title character of this novel throws her bridal bouquet into a fire while she is packing for her move to Yonville. For 10 points each:

[10] Identify this novel whose title character marries Charles, a doctor who later botches a surgery to repair the club foot of Hippolyte.

ANSWER: Madame Bovary

[10] *Madame Bovary* is a novel by this author who wrote about the Mercenary War in Carthage in the historical novel *Salammbô*.

ANSWER: Gustave Flaubert

[10] The title for Julian Barnes' novel *Flaubert's Parrot* was inspired by this story about Madame Aubain's maid Félicité who has a vision of her dead parrot Loulou as she dies.

ANSWER: "A **Simple Heart**" [or "Un **coeur simple**"]

18. An important concept in this branch of linguistics is the cooperative principle, which can determine the implications people make in conversation. For 10 points each:

[10] Name this subfield of linguistics that studies meaning. It is often contrasted with syntax.

ANSWER: semantics [accept pragmatics]

[10] This Russian linguist and pioneer of phonology defined six functions of language, including referential, emotive, and metalingual functions.

ANSWER: Roman Osipovich **Jakobson** 

[10] Another notable linguist is this MIT professor and "father of modern linguistics." He developed generative grammar, which claims that most knowledge of grammar is innate.

ANSWER: Avram Noam Chomsky

- 19. All of Japan's contact with the outside world during the Edo period occurred through Dejima, an artificial island built off the coast of this city. For 10 points each:
  - [10] Name this common point of entry for early Portuguese visitors to Japan that had an atomic bomb dropped on it three days after Hiroshima.

ANSWER: Nagasaki

[10] Traders from this nation had such a large presence on Nagasaki that the knowledge acquired from this nation by Japan was nicknamed its "learning." It controlled most of modern-day Indonesia during its colonial era.

ANSWER: the **Netherlands** [or **Holland**; or "**Dutch** learning"]

[10] Foreign boats that visited Japan during its periods of relative isolation were given this nickname. This nickname was also applied to Commodore Matthew Perry's ships that opened trade relations with Japan in the 1850s.

ANSWER: **Black** Ships [or **kurofune**]

20. A set of friezes shows members of the family that commissioned this sculpture watch this sculpture's events as if from a balcony. For 10 points each:

[10] Name this sculpture that sits in the Cornaro Chapel in Rome's Santa Maria della Vittoria. It shows an angel pointing an arrow towards the central Discalced Carmelite nun.

ANSWER: *The Ecstasy of St. Theresa* 

[10] This Baroque artist created *The Ecstasy of St. Theresa*, as well as the *Fountain of the Four Rivers*.

ANSWER: Gian Lorenzo Bernini

[10] Bernini designed this ornate canopy to stand over St. Peter's tomb. Its twisted Solomonic columns perfectly frame the Bernini-designed "Cathedra Petri."

ANSWER: St. Peter's **baldachin** [or St. Peter's **baldacchino**]

# Extra

Soviet leaders often toyed with plans for economic reform. For ten points each:

[10] The implementation of this state capitalist economic program during the 1920's was the USSR's only real experiment with non-central planning. It was aggressively championed by Lenin.

ANSWER: New Economic Policy [or NEP; or Novaya Ekonomicheskaya Politika]

[10] Later, the USSR adopted a total of thirteen of these plans, named after a period of time. The first of them led to the holodomor, a famine that killed hundreds of Ukrainians.

ANSWER: Five-Year Plans

[10] The earliest five-year plans were established by this man, who succeeded Lenin as leader of the Soviet Union. He expelled many of his enemies during several purges and led the USSR through World War II.

ANSWER: Joseph <u>Stalin</u> [or Joseph <u>Dzhugashvili</u>]