ACF Fall 2017 Edited by Jonathan Magin, Adam Silverman, Jason Cheng, Bruce Lou, Evan Lynch, Ashwin Ramaswami, Ryan Rosenberg, and Jennie Yang Editors 1 Packet

Tossups

1. In an abstract "play-within-a-play" by this author, a young man uses fumes of sulfur and two red lights across a lake to represent Satan before storming off because his mother won't take it seriously. In another play by this author, a woman reveals that she moved to Paris after the deaths of her husband and her son Grisha. In one of his plays, Nina reveals that she loves Trigorin before the would-be playwright Treplyov shoots himself. At the end of another play by this author, Lopakhin buys the title plot of land from Madame Ranevskaya in order to chop it down. For 10 points, name this Russian author of *The Seagull* and *The Cherry Orchard*. ANSWER: Anton **Chekhov**

2. Many citizens of this country resisted foreign occupation with a defiant attitude termed "absurd refusal." Women who slept with enemy officers in this country were accused of "horizontal collaboration." This country was forced to formally surrender in the very same train-car it had forced another country to surrender in more than 20 years earlier. The *Milice* (mih-LEECE) secret police terrorized this country's citizens. The Appeal of 18 June was given by a leader of this country after it was swiftly defeated in a short military campaign that utilized *blitzkrieg* tactics to storm through the Ardennes. For 10 points, name this country whose resistance against its Vichy government was led by Charles de Gaulle.

ANSWER: France [or Vichy France until "Vichy" is read]

3. An acetylide of this element reacts with a palladium complex in the transmetallation step of the Sonogashira coupling. Aryl diazonium salts react with salts of this element to produce aryl halides in the Sandmeyer reaction. Reduction of this element from its plus-two oxidation state to plus-one is used as a test for sugars in Fehling's solution, which produces a brick-red precipitate. The pentahydrate salt of this element's sulfate has a bright blue colour. Corrosion of this element gives the bright-green pigment verdigris, and it is alloyed with zinc in brass and with tin in bronze. For 10 points, name this highly-conductive element with symbol Cu. ANSWER: **copper** [or **Cu** early]

4. A ballet by this composer was the first ballet to include a tap dancing number. The set for another of this composer's ballets consists of some minimal framing for a house and a single rocking chair. The final section of one of this composer's ballets is based the folk song "Bonaparte's Retreat," and that section follows a "Ranch House Party" and a "Saturday Night Waltz." Towards the end of a ballet with a set designed by Isamu Noguchi and choreography by Martha Graham, this composer included five variations on the Shaker hymn "Simple Gifts." For 10 points, name this American composer of the ballets *Rodeo* and *Appalachian Spring*. ANSWER: Aaron **Copland**

5. Hotelling's lemma shows this quantity is equal to the derivative of another function. A similarly named concept will not change with the price level in the long run, but may be horizontal or upward sloping on an AD-AS diagram in the short run. When externalities exist, this quantity is not equal to total social cost. For a competitive firm, this quantity is found by locating where marginal cost equals price. A common restatement of Say's Law says that it "creates" another concept. In a graph of price versus quantity, this quantity is almost always upward sloping. For 10 points, name this economic quantity, which at market equilibrium will be equal to demand. ANSWER: **supply** [or aggregate **supply**; or **output**]

6. This thinker asked, "Why, then, are we not simply Marxists?" in a work that was published in his journal *Les temps modernes.* This author of *Search for a Method* wrote a book which described how the being-for-itself strives to become the being-in-itself. In a lecture, he denied that his school of thought was a "philosophy of quietism," but instead called it a humanism. He gave an example of a young woman on her first date and a waiter at a café whose actions are inauthentic in order to demonstrate his concept of "bad faith." Antoine Roquentin suffers a "sweetish sickness" in his novel *Nausea.* For 10 points, name this French existentialist who wrote *Being and Nothingness.* ANSWER: Jean-Paul **Sartre**

7. An interregnum in this country from 1383 to 1385 was resolved after it successfully preserved its independence at the Battle of Aljubarrota (al-HOO-bah-rote-ah). This country was invaded in the brief War of the Oranges, after which its southernmost portion became directly ruled by Manuel de Godoy. After this country's king Sebastian I died at the Battle of Alcacer Quibir (al-cah-SEAR kwi-BEER), it was forced into a dynastic union with a neighboring country from 1580 until 1640, when its House of Braganza took power. This country received everything east of the line drawn by the Treaty of Tordesillas, including its colony of Brazil. For 10 points, name this European country which shares the Iberian Peninsula with Spain. ANSWER: **Portugal**

8. A poet from this movement exclaimed "Like men we'll face the murderous, cowardly pack / Pressed to the wall, dying, but fighting back" in a sonnet which implores its audience not to act like hunted hogs. A poem from this movement uses parentheses to set off the line "America never was America to me." This movement included the author of "If We Must Die," Claude McKay. Another poet from this movement wrote "Let America Be America Again" as well as a poem asking "what happens to a dream deferred?" That poet is Langston Hughes. For 10 points, name this African American literary movement of the 1920s and 1930s named after a neighborhood in New York City.

ANSWER: the Harlem Renaissance [prompt on partial answer]

9. A musical work of this type was the first to use the *soggetto cavato* (so-JET-toe ca-VAH-toe) technique to build a musical cryptogram from the Duke of Ferrara's name. Many works of this type used the song "L'Homme Armé" (LAHM ar-MAY) as the *cantus firmus*; the most famous of those works are by Josquin des Prez. One of the most prominent examples of this type of work has two *Agnus Deis* and apocryphally convinced the Council of Trent not to ban polyphonic music. That work of this type, named for Pope Marcellus, was written by Palestrina. For 10 points, name these works that include movements such as the *Credo* and *Kyrie* (KEY-ree-ay), choral settings of the main parts of the Eucharist.

ANSWER: Renaissance masses [or missa; prompt on ordinary; do not accept answers that mention "requiem"]

10. This phenomenon is exhibited by the rotation of a water wheel with leaky buckets. This phenomenon is exhibited by the logistic map when the parameter *r* reaches the value 3.57. It occurs when the divergence over time of two similar trajectories in phase space grows exponentially, meaning that the Lyapunov exponent is positive. An example of this phenomenon is exhibited by the double pendulum. Early attempts to predict weather patterns led to a series of nonlinear differential equations whose solutions showed this property. This phenomenon is characterized by extreme sensitivity to initial conditions. For 10 points, name this phenomenon exemplified by the butterfly effect. ANSWER: **chaos** theory [or **chaotic** or other word forms]

11. In the *Thrymskvida* (THRIM-skvi-da), this figure acted as the maid of a god whose fearsome, burning eyes terrified his suitor. In the *Thorsdrapa*, this god, in the form of a hawk, was captured and held ransom by Geirrod. This god turned himself into a gadfly and bit Brokkr in the eye as he tended to a forge. While disguised as the giantess Thokk, this god refused to mourn for Baldr, condemning Baldr to Hel. As a mare, this god mated with a stallion and bore the eight-legged Sleipnir. This god and Heimdall will kill each other at Ragnarok, which will also result in the deaths of his children Jörmungandr and Fenrir. For 10 points, name this shape-shifting Norse trickster god.

ANSWER: Loki Laufeyarson [or Loptr (LOP-tre)]

12. An influential group of brothers all born of this family's patriarch are collectively known as the Sudairi Seven. At the Battle of Sabilla, a member of this family crushed a revolt of the Ikhwan, religious militia who had earlier propelled that man into power. This family's authority was challenged in 1979 by a group led by Juhayman al-Otaybi. The bin Laden family maintains close relations with this family, which maintains control of a state that adheres to an ultra-strict interpretation of Islam called Wahhabism. The currently-reigning member of this royal family is King Salman. For 10 points, name this family whose members rule an oil-rich Middle Eastern kingdom containing Medina and Mecca.

ANSWER: House of <u>Saud</u> [or <u>Saud</u> i royal family]

13. These proteins all share a structure consisting of three alpha helices separated by two loops, comprising a namesake "fold" that interacts through a "handshake motif." Protein complexes such as Polycomb can make post-translational modifications on these proteins, which are recognized by chromodomains and bromodomains. HATs can reduce these proteins' positive charge by performing acetylation on them. A "code" named for these proteins describes modifications that can promote or repress transcription. These proteins, which form the core of a nucleosome, include H2A, H2B, H3, and H4. For 10 points, name these proteins around which eukaryotic DNA winds.

ANSWER: histones

14. The speaker of a poem by this author wishes to join a "glimmering girl" in picking "the silver apples of the moon / the golden apples of the sun." This author described a woman with "beauty like a tightened bow" in a poem which wonders, "Why should I blame her that she filled my days / With misery." A third poem by this author describes how "A shudder in the loins engenders there / The broken wall, the burning roof and tower / And Agamemnon dead." This author's love for Maud Gonne inspired his poems "No Second Troy" and "Leda and the Swan." For 10 points, name this poet who asked, "What rough beast, its hour come round at last, slouches towards Bethlehem to be born?" in "The Second Coming." ANSWER: William Butler **Yeats** [or W. B. **Yeats**]

15. A boundary dispute with Britain over this state's border was resolved in 1903 and involved determining the exact meaning of vague terms such as "the mountains parallel to the coast." The Gastineau Channel separates the capital city of this state from the mainland. The largest national forest in the United States, the Tongass National Forest, covers a sizable portion of this state, including its state capital. A series of islands and inlets that stretch along this state 's southeastern panhandle is a popular cruise ship route called the Inside Passage. Popular tourist destinations in this state are the cities of Ketchikan and Sitka. For 10 points, name this state whose capital is Juneau, the largest state by area.

ANSWER: Alaska

16. This artist responded to his friend Anthon van Rappard declaring his work as "utterly weak" by angrily writing "I am always doing *what I can't do yet* in order to learn how to do it." This artist drew his mistress Sien with her head in her arms in *Sorrow*. One painting by this artist shows five poor people huddled around a dimly-lit table for a meal. Another painting by this artist shows his bedroom in the Yellow House at Arles, where he lived with Paul Gauguin. Some of this artist's self-portraits show him with a straw hat or a bandaged ear. For 10 points, name this Dutch artist of *The Potato Eaters* and *The Starry Night*, who painted a series of still lifes of sunflowers. ANSWER: Vincent (Willem) Van Gogh

17. During the Revolutionary War, this country was prevented from taking a British territory through the resistance of George Augustus Eliott's troops. Border disputes with this country led to the formation of the Sabine Free State. James Wilkinson was secretly in the pay of this country. Thomas Pinckney negotiated a treaty with this country that gave the nascent United States free access to the Mississippi River, as well as tax-free deposit rights in the port of New Orleans, which this country held from 1762 to 1802 as part of its control over Louisiana. For 10 points, name this country, which ceded Florida to the United States through the Adams-Onis Treaty. ANSWER: **Spain** [or *Espana*; or **Spanish** Empire]

18. Vertically aligned nanotube arrays have been used to produce the most intense known form of this color. The Lyman absorption forest is formed by lines of this color emitted by quasars. This color describes objects that can be approximated by a cavity in a hole and have an emissivity of one. This is the color of spectral absorption lines, as well as the background of an emission spectrum. The Rayleigh-Jeans law describes radiation from bodies named for this color. Gravitational collapse can form an object named for this color, which has a Schwarzschild radius that marks its event horizon. For 10 points, name this color that names "holes" from which not even light can escape. ANSWER: **black** [prompt on <u>no color</u> or equivalents]

19. A speech in this novel claims that although "no code" mattered to a poor woman "before she broke it," it "came crashing down on her afterwards." A character in this novel attempts to dispel the idea that courage is a man with a gun by making his son read to the morphine-dependent Mrs. Dubose. Its narrator befriends a character based on the author's friend Truman Capote, her summer friend Dill. The housekeeper Calpurnia looks after the narrator and her brother, who later walk home from a Halloween pageant only to be attacked by Bob Ewell. For 10 points, name this novel set in Maycomb about Jem, Scout, and Atticus Finch, written by Harper Lee.

ANSWER: To Kill A Mockingbird

20. While on his deathbed, Bhishma teaches Yudhisthira about 1000 of these things, collectively known as the Vishnu Sahas-ra-nama. Phrases that proclaim these things are chanted in the background during a Sufi dhikr ceremony. 108 of these things are usually chanted to Hindu deities in pujas. When Moses asks what one of these things is, he receives the reply, "I am that I am." The Quran contains 99 of them, including ones meaning "The Most Gracious" and "The Bestower." One of these things is called the tetragrammaton because it has four letters, Y, H, W, and H. For 10 points, name these words that are used to refer to a supreme being, such as Jehovah and Allah. ANSWER: **name**s of God [or obvious equivalents; or **epithets of God**; or **names of Vishnu**; or or **names of Allah**; prompt on <u>names</u>]

Tiebreaker. Hemoglobin can react with this molecule to form a protein known as Hb A1C ("H B A one C"). PEP carboxy-kinase is required for a pathway used to produce this molecule in the liver. Levels of this molecule are reduced in the blood by activation of the transporter GLUT4 to help cells absorb it. Two of these molecules make up one molecule of maltose. This molecule is the most common substrate of hexokinase, which phosphorylates it to form G6P. Blood levels of this molecule are usually reduced by insulin, so levels of this molecule can grow unchecked in diabetes mellitus. For 10 points, name this six-carbon sugar that is broken down in glycolysis. ANSWER: glucose [or C6H12O6; prompt on sugars; prompt on monosaccharides]

Bonuses

1. This man outlined a seven-step plan to destroy Jews in a lengthy treatise called *On the Jews and Their Lies*. For 10 points each:

[10] Name this man whose violent views extended to German peasants, whom he encouraged people to "smite, slay, and stab" in his pamphlet *Against the Murderous, Thieving Hordes of Peasants*.

ANSWER: Martin Luther

[10] In a petition with this many demands in it, German peasants pressed the Swabian League for changes, including the abolition of the *Todfall* death tax. The first written Roman law code consisted of this many tables. ANSWER: <u>twelve</u> [or <u>12</u>; or <u>Twelve</u> Articles; or <u>Twelve</u> Tables]

[10] German peasants were inspired to rebel by a revolt of these people just one year earlier. These mounted warriors dominated European warfare for centuries and followed a code of honor called chivalry. ANSWER: knights [or the Knights' Revolt]

2. In this novel, Umuofia is colonized while Okonkwo is in exile. For 10 points each:

[10] Name this novel, in which the famed wrestler Okonkwo kills his adopted son Ikemefuna, leading to his exile. ANSWER: *Things Fall Apart*

[10] This Nigerian author, whose essay "An Image of Africa" criticized the racism of *Heart of Darkness*, wrote *Things Fall Apart*.

ANSWER: Chinua Achebe

[10] In *Things Fall Apart*, Okonkwo works as a farmer of these vegetables, which are a symbol of wealth and power in Umuofia.

ANSWER: yams

3. Creatures in the right-most panel of this painting include a pig wearing a nun's veil and a giant human-faced monster with a cracked shell impaled on a tree. For 10 points each:

[10] Name this triptych, the central panel of which features many naked humans cavorting in the title idyllic place amidst large strawberries.

ANSWER: The Garden of Earthly Delights

[10] The Garden of Earthly Delights was painted by this Dutch artist of The Ship of Fools and The Haywain Triptych.

ANSWER: Hieronymus Bosch [or Jheronimus van Aken]

[10] This Catalan Surrealist referenced the composition of *The Garden of Earthly Delights* in his painting *The Tilled Field*.

ANSWER: Joan Miró (i Ferrà)

4. This scientist one quipped that "logarithmic plots are the device of the devil," but they turned out to be pretty useful for him. For 10 points each:

[10] Name this American scientist who worked with Beno Gutenberg to create a namesake scale to measure the intensity of earthquakes.

ANSWER: Charles Francis Richter

[10] Richter and Gutenberg developed the scale while at this university, a small research university located in Pasadena. Richard Feynman taught at this university for most of his life.

ANSWER: <u>Caltech</u> [or <u>California Institute of Technology</u>]

[10] Gutenberg also names this type of boundary in the Earth's mantle. This term generally refers to a boundary past which seismic wave velocities drastically change, such as ones named for Mohorovičić and Lehmann. ANSWER: <u>discontinuity</u> 5. In a horrific accident in the early days of this country's space program, one of its cosmonauts burned to death in a chamber with a nearly 100% pure oxygen atmosphere. For 10 points each:

[10] Name this superpower which kicked off the Space Race by launching the first satellite, Sputnik, into orbit. ANSWER: <u>Soviet Union</u> [or <u>Union of Soviet Socialist Republics</u>; or <u>USSR</u>; or *Soyuz <u>Sovetskikh</u>*

Sotsialisticheskikh Respublik; or CCCP; prompt on Russia]

[10] In 1961, the Soviet Union achieved another milestone in the Space Race when it sent this first human into space.

ANSWER: Yuri Gagarin

[10] Gagarin's spacecraft was given this name. A major Russian research station in Antarctica and the world's largest subglacial lake are also named after this Russian word for "east."

ANSWER: Vostok [or Vostok 1; or Vostok Station; or Lake Vostok]

6. Along with E.E. Cummings, Archibald MacLeish, W. Somerset Maugham, Jean Cocteau, and Walt Disney, this man served as an ambulance driver in World War I. For 10 points each:

[10] Name this American author who drew on his experiences in the war to write a novel about the romance of Catherine Barkley and Frederic Henry, *A Farewell to Arms*.

ANSWER: Ernest Hemingway

[10] Never one to shy away from conflict, Hemingway worked as a reporter during this war, which is the setting of a Hemingway novel about the dynamiter Robert Jordan, *For Whom the Bell Tolls*.

ANSWER: Spanish Civil War [or Guerra Civil Española]

[10] Hemingway spent much of his time in his early 30s on this American island. Wallace Stevens titled a poem after the "idea of order" at this place.

ANSWER: Key West

7. This band traveled to London to record their album *Fables of the Reconstruction*. For 10 points each: [10] Name this band that released the singles "Losing My Religion" and "It's The End Of The World As We Know It."

ANSWER: **<u>R.E.M.</u>**

[10] R.E.M.'s first single was this song, named after a US government program supported by the "Crusade for Freedom." However, the lyrics are mostly indecipherable due to Michael Stipe's mumbling.

ANSWER: "Radio Free Europe"

[10] A 2014 documentary was titled R.E.M "by" this TV channel, which helped popularize them. It was the first to feature 24/7 music videos and currently airs *The Real World*, *Teen Mom 2*, and *Jersey Shore*. ANSWER: **MTV**

8. Answer the following about the man described as having "more impact on the Earth's atmosphere than any other single organism in Earth's history," Thomas Midgley. For 10 points each:

[10] Whilst working for the Frigidaire division of General Motors, Midgley helped synthesise Freon-12, which is a member of this general class of refrigerants and solvents banned by the Montreal Protocol.

ANSWER: chlorofluorocarbons [or CFCs]

[10] Midgley also developed a tetra-ethyl compound of this element for use as an anti-knock agent in combustion engines. This toxic heavy metal used in old pipes has caused the Flint, Michigan water crisis, and has symbol Pb. ANSWER: <u>lead</u>

[10] Midgley's tetra-ethyl lead has been replaced by other anti-knock agents like this compound, which was the first sandwich compound to be discovered and contains two cyclopentadienyl rings. ANSWER: <u>ferrocene</u> 9. King Herod orders the Massacre of the Innocents after he sends these people to find a young boy. For 10 points each:

[10] Name this group, whose members are known as Melchior, Caspar, and Balthazar. A visit by these people is celebrated on Epiphany.

ANSWER: biblical Magi [or the three Magi; or Three Wise Men; or Three Kings]

[10] The Magi came from the "East" to visit this infant. He was born in Bethlehem, and his birth is celebrated on Christmas.

ANSWER: Jesus Christ [accept either]

[10] The Magi were said to have been martyred and buried in a shrine in this building. This Gothic cathedral, located in Germany, is the largest twin-spired cathedral in the world.

ANSWER: Cologne Cathedral

10. Several men hurry down the sidewalk past a series of tall, dark windows in a platinum palladium print photo taken in this city. For 10 points each:

[10] Name this city, the subject of Jacob Riis's *How the Other Half Lives* and the setting of Paul Strand's photograph *Wall Street*.

ANSWER: New York City [or NYC]

[10] This artist took many photos set in New York, including *Child with Toy Hand Grenade in Central Park*. Much of her work documents marginalized people, or "freaks."

ANSWER: Diane Arbus [or Diane Nemerov]

10] Arbus took a photo of Eddie Carmel, a man with this physical trait, with his parents in the Bronx. Shepard Fairey, who designed Obama's *Hope* posters, created an image of another man with this trait above the word "OBEY."

ANSWER: giant [or gigantism; accept answers indicating he was very tall]

11. This policy was supported by George F. Kennan's Long Telegram. For 10 points each:

[10] Name this Cold War-era strategy of the United States meant to staunch the spread of communism. ANSWER: containment

[10] The Long Telegram was written in 1946, during this president's administration. This president succeeded Franklin Delano Roosevelt and ordered the atomic bombing of Hiroshima and Nagasaki.

ANSWER: Harry S Truman

[10] The Truman Doctrine, which acted on the principles of containment, supported anti-communist forces in civil wars in these two nations. Name both.

ANSWER: Greece and Turkey [or Elliniki Dimokratia for Greece and Turkiye Cumhuriyeti for Turkey]

12. A 2017 sequel written by Lucas Hnath opens with this character knocking on a door. For 10 points each: [10] Name this character from a 19th-century play who proclaims that she has "thirty-one hours to live" before going to dance the Tarantella at a party. Krogstad blackmails this character over her forgery of her father's signature.

ANSWER: Nora Helmer [accept either]

[10] Nora slams the door and leaves her husband at the end of *A Doll's House*, a play by this Norwegian author of *Hedda Gabler* and *The Wild Duck*.

ANSWER: Henrik Ibsen

[10] Ibsen was a major proponent of this late 19th-century genre of theater, which emphasized relatable settings and use of vernacular.

ANSWER: realism [or word forms]

13. This author described three types of authority — traditional, charismatic, and legal — in his *Three Types of Legitimate Rule*. For 10 points each:

[10] Name this German sociologist who attributed the development of European market societies to the influence of Calvinist theology.

ANSWER: Max Weber

[10] Weber defined this concept as the entity that holds "a monopoly on the legitimate use of force." This concept is often paired with "nation" to describe mono-ethnic countries.

ANSWER: the state [do not accept "country" or "government"]

[10] This author described a "minimally protective state" whose only duty is to protect its citizens from violence in his book *Anarchy, State, and Utopia*, which aims in part to refute John Rawls's theory of distributive justice. ANSWER: Robert **Nozick**

14. In cgs units, this constant is equal to e squared over h bar times c, or around 1/137. For 10 points each: [10] Name this fundamental constant. First introduced by Sommerfeld, it is the coupling constant that characterizes the strength of the electromagnetic interaction.

ANSWER: fine structure constant [prompt on alpha]

[10] This other constant important in electromagnetism is equal to 1 over 4 pi epsilon naught. It appears in an inverse-square law that describes the force between two charged particles.

ANSWER: <u>Coulomb</u>'s constant [or <u>k</u>; or "<u>k e</u>"; or "<u>k sub e</u>"]

[10] Since the Coulomb force is an inverse-square force, the electrostatic *potential* caused by the Coulomb force for a point charge is proportional to this power of r.

ANSWER: **<u>negative one</u>** [or "<u>one over</u> r" or "<u>reciprocal</u> of r" or "<u>inverse</u> of r"]

15. The "Dvaita" and "Advaita" forms of this school represent dualism and nondualism, respectively. For 10 points each:

[10] Name this school of Hindu philosophy that emphasizes inquiry into the Atman and Brahman. It literally means "end of the Vedas" in Sanskrit.

ANSWER: Vedanta

[10] Like many other schools of Hindu thought, Vedanta believes that this cycle of birth and death is caused by doing action, or karma. This cycle is known as samsara [sam-SA-ra] in Sanskrit.

ANSWER: reincarnation [or transmigration of souls; or metempsychosis]

[10] A person who has mumukshutva [mu-MOO-kshu-tvaa] desires this process of freedom from bondage from the world and from samsara. According to Vedanta, this word, which means "liberation," is the ultimate goal of life. ANSWER: **moksha** [or **nirvana**; or **mukti**]

16. This building's first version was built during the Ashikaga period and was destroyed during the Onin War. For 10 points each:

[10] Name this Buddhist temple which was burned to the ground in a 1950 act of arson committed by Hayashi Yoken, who is represented by the character Mizoguchi in a Yukio Mishima novel about its burning.

ANSWER: Golden Pavilion [or Kinkaku-ji; accept The Temple of the Golden Pavilion]

[10] The Golden Pavilion is located in this former capital of Japan. Though this city was nominally the capital during the Tokugawa shogunate, its shoguns ruled from Edo, or modern-day Tokyo.

ANSWER: Kyoto

[10] Japan's capital first moved to Kyoto from Nara during this period of greatly increased cultural development ruled by the Fujiwara clan. This period was ended after the Genpei War.

ANSWER: Heian Period

17. In a novel by this author, Padre Jose refuses to hear the confession of a condemned man due to pressure from his wife. For 10 points each:

[10] Name this author of a novel set in Mexico in which the "whiskey priest" flees from the Lieutenant, titled *The Power and the Glory*.

ANSWER: Henry Graham Greene

[10] The "whiskey priest" in Greene's *The Power and the Glory* belongs to this religious organization. Greene's conversion to this branch of Christianity influenced his novels *Brighton Rock* and *The Heart of the Matter*. ANSWER: <u>Catholic</u> Church [or <u>Catholic</u>ism; or other reasonable equivalents]

[10] In this other novel by Greene, the vacuum cleaner salesman James Wormold fabricates reports while working as an informant for British intelligence services which fumble their way around the title city.

ANSWER: Our Man in Havana

18. This composer wrote *Variations on a Theme of Frank Bridge* as a tribute to his teacher. For 10 points each: [10] Name this English composer who used Wilfred Owen's poetry to write a *War Requiem* and wrote *A Young Person's Guide to the Orchestra*..

ANSWER: Edward Benjamin Britten

[10] Britten's *Young Person's Guide to the Orchestra* features variations on the Rondeau from this 17th-century English composer's *Abdelazar*. This composer also wrote the opera *Dido and Aeneas*.

ANSWER: Henry Purcell

[10] This English composer wrote some *Improvisations on an Impromptu of Benjamin Britten*. He also wrote the ballet *Façade* and the cantata *Belshazzar's Feast*.

ANSWER: Sir William Turner Walton

19. The events in Ovid's version of the Apollo and Daphne story are set in motion by two uses of these objects. For 10 points each:

[10] Name these objects from Classical mythology that often cause their targets to fall madly in love.

ANSWER: <u>**Cupid**</u>'s <u>**arrow**</u>s [or <u>**Eros**</u>'s <u>**arrow**</u>s; accept answers that also mention the <u>**bow**</u>; prompt on "<u>arrows</u>"] [10] As told by Ovid, Cupid was annoyed with this god's arrogance and pierced him with one of his arrows, causing this god to fall for Daphne. Another of his lovers, Hyacinth, was killed by a discus that Zephyrus blew off course. ANSWER: <u>**Apollo**</u> [or <u>**Phoebus**</u> Apollo]

[10] Cupid then fired an arrow with a tip made of non-gold this material at Daphne, which caused her to be repulsed by Apollo. After begging her father Peneus for help, she was turned into a laurel tree. ANSWER: lead

20. Yoshinori Ohsumi won the 2016 Nobel Prize in Physiology or Medicine for studying this process. For 10 points each:

[10] Name this cellular process that is responsible for the degradation of cytoplasmic components such as proteins or entire damaged organelles. Its name means "self-eating."

ANSWER: **<u>autophagy</u>** [or **<u>autophagocytosis</u>**]

[10] In autophagy, the waste components are ultimately brought to these organelles for destruction. The low pH of these organelles allows hydrolytic enzymes to break down most biomolecules that enter them.

ANSWER: lysosomes

[10] Autophagic proteins such as the Atg family were first discovered in this organism, studied extensively by Ohsumi. This single-celled model organism was the first eukaryote to have its genome sequenced. ANSWER: *Saccharomyces cerevisiae* [or **baker's yeast**]