

### ACF Fall 2013

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1. This island's Danum Valley Conservation Area is the only known home of the spectacled flowerpecker. Anthony Brooke was the heir apparent to the White Rajahs, a dynasty of Englishmen who controlled a kingdom on this island from 1841 to 1946. The Mahakam River flows past the city of Samarinda before emptying into the Makassar Strait, which separates Sulawesi from this island. The southern portion of this island is known as Kalimantan, and its northern portion contains the states of Sabah and Sarawak and an independent kingdom ruled by a sultan. For 10 points, name this Southeast Asian island divided between Malaysia, Indonesia, and Brunei.

ANSWER: **Borneo**

2. In one work, this thinker showed how one of the title concepts produces a construct of individuality based on genetic, combinatorial, cellular, and organic characteristics. This philosopher described the "Great Confinement" in which the mentally ill were no longer allowed to exist on the fringe of society, but were rather institutionalized. He defined each era's conception of the meaning of knowledge as its *episteme*. This author of *Madness and Civilization* discussed the public torture of Damians and the idea of Bentham's Panopticon in a history of the penal system. For 10 points, name this French poststructuralist author of *The Order of Things* and *Discipline and Punish*.

ANSWER: Michel **Foucault**

3. One classification system developed by this man distinguishes objects labeled Sa through Sc from those labeled SBa through SBc. This man resolved the Curtis-Shapley debate by using Cepheid variables to measure the distance to the Andromeda Galaxy. This namesake of a tuning fork diagram for classifying galaxies also names a constant currently estimated at about 70 kilometers per second per megaparsec. That constant is used in a law named for this man, which sets relative velocity proportional to distance and describes the universe's constant expansion. For 10 points, identify this namesake of a space telescope launched by NASA in 1990, an American astronomer.

ANSWER: Edwin **Hubble**

4. In a representative agent problem, this factor's demand curve is derived by equating "MRP" with "w," and its supply curve can be backward-bending. The Hecksher-Ohlin model's prediction that countries with low values of this factor compared to capital will import goods intensive in it is empirically untrue in Leontief's paradox. The market for this factor is less frictional if the Beveridge curve is nearer the origin. Adam Smith argued that the value of a good depends on this factor of production, inspiring Karl Marx's "theory of value" based on this factor. For 10 points, name this factor of production, on whose namesake market employees sell their time to employers.

ANSWER: **labor** [accept **labor market**; prompt on **human capital** or equivalents such as **work**]

5. A Biblical passage set at this location mentions that the Lord was not in the wind, nor in the earthquake, nor in the fire. After he's threatened for his life by King Ahab, Elijah winds up at this place. At this place, the Levites kill three thousand of their brothers, friends, and neighbors, and are called a "stiff-necked people" by God. According to Deuteronomy, this place should more accurately be called Horeb. A man here is forced to wait for two periods of forty days and forty nights after he drops a chiseled piece of stone, prompting the other Israelites to construct the Golden Calf. For 10 points, name this mountain where Moses received the Ten Commandments.

ANSWER: Mount **Sinai** [or Mount **Horeb** before mention]

6. In the denominator of the Hill equation, one form of this quantity is added to ligand concentration raised to the nth power. A plot of the log of this quantity against one over temperature has a slope of negative enthalpy divided by the gas constant. The change in Gibbs free energy in a reaction equals negative RT times the log of this quantity. Le

Chatelier's principle states that a shift to the right occurs when the reaction quotient is less than this value. The law of mass action sets this quantity equal to the molarity of the products over the reactants, each raised to their stoichiometric coefficients. For 10 points, name this constant written K-sub-eq.

ANSWER: **equilibrium constant** [or **dissociation constant**; or **K<sub>eq</sub>** before mention; do not accept "rate constant"]

7. This character is compared to a bright comet that shines as long as Ophiuchus as he rises "over the Caspian." In one conversation, this character concludes that his addressee would "boldly venture to whatever place / farthest from pain." His nemesis warns others to beware of this character's plans, which he initiates by taking the form of a cormorant and sitting atop the Tree of Life. This character, who loses the trust of Abdiel, resides in Pandemonium with his second-in-charge, Beelzebub, and his children, Sin and Death. For 10 points, name this character who concludes that it is better to reign in Hell than to serve in Heaven, a fallen angel in John Milton's *Paradise Lost*.

ANSWER: **Satan** [or **Lucifer**]

8. One class of these materials has special surface states protected by time-reversal symmetry, and are known as the "topological" type of these materials. These materials must have an even integer number of electrons per unit cell, which means that these materials have a perfectly filled valence band, above which there is a large band gap. These materials may exhibit an electric arc when a voltage larger than the breakdown voltage causes a charge to leap across them, but under normal conditions have an extremely high resistivity. For 10 points, identify these materials such as glass and rubber that block electrical current, in contrast to conductors.

ANSWER: electrical **insulators**

9. This author's most recent novel includes a ticket into a real building that contains the objects used by the characters. Another work by this author of *The Museum of Innocence* sees Butterfly, Olive, and Stork questioned after an admirer of Venetian art named Elegant Effendi is found in a well. In addition to that work set in Murad III's empire, this novelist described the death of an education director in the New Life Café after he is accused of atheism. In that novel, Ka investigates a rash of suicides by teenage girls in defiance of a headscarf ban. For 10 points, name this Turkish Nobel Laureate who wrote *My Name is Red* and *Snow*.

ANSWER: Ferit Orhan **Pamuk**

10. This nation's first democratic power transfer resulted in the election of the New Patriotic Party. In Operation Cold Chop, General J. A. Ankrah led a coup in this nation against a president who was meeting with Zhou Enlai. That leader had earlier led a campaign of "positive action" for this country's independence from Britain and issued the Second Development Plan. This nation's namesake empire was dominated by the Susu people before being conquered by Mali, and the Ashanti Empire once dominated this modern-day nation. For 10 points, name this African country that was led by Kwame Nkrumah and formerly called the Gold Coast, with capital at Accra.

ANSWER: Republic of **Ghana**

11. A song titled after this country urges, "dare to be one of us girl, faced with the android's conundrum," and its music video sees the band's members steal balloons from a car dealership. That song of this name begins, "Born to multiply, born to gaze into night skies" and is the second track from The Shins' *Wincing the Night Away*. A band from this country released the song "Put Your Money Where Your Mouth Is" on *Shine On*, though it is better known for "Are You Gonna Be My Girl." A hard rock band from here led by guitarist Angus Young recorded "Hells Bells" on its album *Back in Black*. For 10 points, name this country home to Jet, AC/DC, and the Outback.

ANSWER: **Australia**

12. Yidel Pankower hears a fabricated birth story in a novel by one author with this surname. In that novel, Albert abuses Genya, and his son David tries to repeat a surreal previous experience by shocking himself on an electrified rail. In addition to the author of *Call It Sleep*, Henry, another author with this surname wrote a novel in which Merry

commits a bombing, and her father investigates Swede Levov. This creator of Nathan Zuckerman created a novel whose title character describes his sexual obsessions to Dr. Spielvogel. For 10 points, give the surname of the author of *American Pastoral* and *Portnoy's Complaint*, Philip.

ANSWER: **Roth** [accept Henry **Roth** or Philip **Roth**]

13. After challenging a schoolmaster's ideas about this war, Willy becomes a teacher in a novel in which Ludwig Breyer is injured in a riot. Detering deserts during this war after he sees a blossom that makes him homesick. The experiences of soldiers returning home from this war were described in the novel *The Road Back*. While dying of a leg wound in a novel set during this war, Kemmerich asks that his shoes be given to Müller. That novel focuses on the Second Company, led by Corporal Himmelstoss, who treats Paul Bäumer ruthlessly. For 10 points, name this war that made heavy use of trenches, as described in Erich Maria Remarque's *All Quiet on the Western Front*.

ANSWER: **World War I** [or the **Great War** or the **First World War**]

14. In one of this artist's works, two skeletons, presumably those of James Field and Maclean, point to each other. This man made an engraving based on the story of Columbus and the egg. The first painting in a series by this artist shows a pregnant woman crying while the central figure gets his leg measured. Tom Nero beats a horse and tortures a dog in works from artist's *Four Stages of Cruelty*. Another of this man's series shows the title character marrying an old woman before going to prison and ending up in Bethlehem Hospital, a mental asylum. For 10 points, name this English artist who painted *Marriage à-la-Mode* and *The Rake's Progress*.

ANSWER: William **Hogarth**

15. K. D. Kavelin argued that these people's immobility made them a static workforce. An 11<sup>th</sup> century law code stipulated a fine of five grivnas for killing one of these people and classified them as *zakups* and *smerds*, while the 1497 Sudebnik allowed them to change loyalties during St. George's Feast Day. An imperial edict by Paul I forbade compelling these people to perform *corvee* labor on Sundays. The major legislation that permanently improved their status also bound them to redemption payments over 49 years, leading to anti-*boyar* riots. For 10 points, name this class of land-bound peasants supposedly freed by Czar Alexander II in the Emancipation Reform of 1861.

ANSWER: Russian **serfs** [or **krepostnoi krestyanin**; prompt on "peasants" but do not accept any nationalities other than Russian]

16. This building contains a work which shows a procession beginning at the Dipylon Gate. One sculpture created for this building depicts three goddesses whose wrinkled clothing hangs loosely off of their bodies. This building's architecture intentionally curved its stylobate to combat the optical illusion of a sagging structure. Its cella once contained a chryselephantine statue of its dedicatee, while its primary architects were Kallikrates and Iktinos. This building features eight and seventeen columns on its short and long sides, satisfying the aesthetic proportions of the golden ratio. For 10 points, name this building on the Athenian Acropolis, a temple dedicated to Athena.

ANSWER: **Parthenon**

17. John McCormack noted that after hearing one of this man's works, Rachmaninoff started to play jazz pieces in his spare time. His song "Rialto Ripples" was the basis for the theme of the last of his *Three Preludes*, intended to be part of a large work called *The Melting Pot*. Walter Damrosch commissioned this man to write a work that begins with a rhythm based on the Charleston, his *Concerto in F*. Another one of this composer's works, subtitled "An Experiment in Modern Music," was inspired by a train ride he took from Boston to New York and begins with a clarinet glissando. For 10 points, name this composer of *Rhapsody in Blue*.

ANSWER: George **Gershwin**

18. During this event, Gytha asked the eventual victor to return her son's body in exchange for his weight in gold. Trouble encountered during this event included an uprising by Eadric the Wild. Resistance to this action resulted in

the devastation of Northumbria during the Harrying of the North. The decisive battle in this event occurred on Senlac Hill, during which cavalry eventually overcame housecarl defenders. It commenced shortly after Edward the Confessor's death, when Duke William challenged Harold Godwinson's claim to the throne. For 10 points, name this excursion which included the Battle of Hastings, the last successful attempt to conquer a certain island nation.

ANSWER: **Norman invasion of England** [accept things that indicate the successful campaign of the **Normans** in **England**; accept **William I** or **William the Conqueror** instead of “Normans” before “Duke William” is read]

19. In the guise of Grímnir, this figure was given water by Agnar while testing the character of Agnar's father Geirrod. Valakjalf, which is built of solid silver, is the location of this god's seat of Hlidskjalf, from which Freyr once looked out and was cursed into falling in love. The insubordination of Brynhild caused this god to lock her in a wall of fire. He possesses Geri and Freki, two wolves, whom he feeds all of his food because he consumes nothing but wine. He once gave up his right eye to Mimir in order to drink from the Well of Wisdom, and owns a spear named Gungnir that never misses its target. For 10 points, name this ruler of the Norse pantheon, known as the Allfather.

ANSWER: **Odin** [accept **Wotan**]

20. In one work, this author claims that friendship is the greatest of all things and only stems from mutual admiration of virtue. In addition to writing that work featuring Laelius, this man was the first to tell the story of the Sword of Damocles in a series of books on Stoicism, the *Tusculan Disputations*. This man defended his friend Milo from charges that he murdered Clodius in his *Pro Milone*. This man also uncovered a plot by a veteran of the Social War to overthrow the republic, the Catiline conspiracy, and condemned Mark Antony in a series of orations modeled on the works of Demosthenes. For 10 points, name this Roman orator who wrote the *Philippics*.

ANSWER: Marcus Tullius **Cicero** [or **Tully**]

21. 16S ribosomal RNA was pioneered to study this taxon. Because cells in this taxon have pseudomurein rather than muramic acid, the monosaccharides form 1,3-glycosidic linkages. Phospholipids in these organisms consist of ether linkages between isoprene-based fatty acids and have the L-stereoisomer of glycerol. Carl Woese pioneered the study of this domain, which has four or five known phyla. Some organisms in this domain can metabolize carbon dioxide to methane and live in the digestive tract of cows. Members of this domain lack peptidoglycan in their cell walls. For 10 points, name this domain of extremophiles, distinct from Eukarya and Bacteria.

ANSWER: **Archaea** [or **archaeobacteria**]

X. In this novel, a disgruntled military general forces the protagonist to move back to Fullerton after he is misled about her family's fortune. The marriage that concludes this novel is made possible by Eleanor's betrothal to a nobleman. One character in this novel is courted by the protagonist's brother, James, but lets him loose in favor of the wealthy military general Frederick. That character, Isabella Thorpe, first introduces this novel's protagonist to the Gothic novels which give her unrealistic expectations of the titular building, which is the home of her love interest Henry Tilney. For 10 points, name this novel about Catherine Morland by Jane Austen.

ANSWER: **Northanger Abbey**

X. This politician claimed that he always had his “plate the right side up when offices were falling.” This man was the first leader of the “Insular Government,” acting as the first American Governor-General of the Philippines. This man's sons had the nicknames “Mr. Cincinnati” and “Mr. Republican.” The Payne-Aldrich tariff was passed under his presidency, and this man's Secretary of State, Philander Knox, began the policy of “Dollar Diplomacy.” This politician's re-election campaign landed him third behind Theodore Roosevelt and Woodrow Wilson in the Election of 1912. For 10 points name, this only person to serve as both President and Chief Justice of the USA.

ANSWER: William Howard **Taft**

X. The electronic contribution to heat capacity varies with this power of temperature. The Lorentz gamma is raised to this power in the expression for relativistic momentum in terms of velocity. A substance's magnetization is proportional to this power of the H-field strength. The electric potential due to an infinite sheet of charge varies with this power of the distance from the sheet. Electrical resistance varies with this power of a resistor's length, and the gravitational force on an object is proportional to this power of its mass. For 10 points, identify this power, which relates two quantities that are linearly proportional.

ANSWER: one [or linear before mention]

1. The central character of this short story frantically refuses to go to the seaside because he thinks he can win a large sum of money at the Derby. For 10 points each:

[10] Name this short story in which Paul forms a partnership with Bassett and wins thousands of pounds betting on races. Paul gains his clairvoyance by sitting on the title object, letting him reverse his family's lack of luck.

ANSWER: "The Rocking-Horse Winner"

[10] This author of "The Rocking-Horse Winner" wrote about Paul Morel, whose attachment to his mother prevents his relationships with Miriam and Clara from materializing, in *Sons and Lovers*.

ANSWER: David Herbert Lawrence

[10] The title character of this novel by Lawrence carries on an affair with the gamekeeper Oliver Mellors because of her husband Clifford's paralysis. It was the focus of a famous obscenity trial.

ANSWER: Lady Chatterley's Lover

2. Answer some questions about an Italian opera with librettists Giacosa and Illica, for 10 points each:

[10] This opera centers around four friends and opens with the poet Rodolfo throwing his manuscript into the fire in order to keep warm in his cold apartment. Mimi dies of tuberculosis at its end.

ANSWER: La boheme

[10] This Italian composed *La boheme*. His other works include *La Rondine* and *Madama Butterfly*.

ANSWER: Giacomo Puccini

[10] This friend of Rodolfo and Marcello is a philosopher by trade. At the end of the fourth act, he goes to sell his overcoat in order to buy medicine for Mimi.

ANSWER: Colline

3. John Adams and diplomacy didn't always go hand-in-hand. For 10 points each:

[10] During the Revolutionary War, Adams served as the first American minister to this European nation. This nation owned St. Eustacius and through it, sold munitions to the Americans during the Revolution.

ANSWER: the Netherlands [or Holland; or the United Provinces]

[10] During a diplomatic crisis during the Adams presidency, Pinckney, Marshall, and Gerry were asked to pay bribes in order to meet with three foreign officials referred to by these three letters of the alphabet.

ANSWER: XYZ

[10] The XYZ Affair was a diplomatic scandal between the United States and this nation, whose foreign minister at the time was Talleyrand. Like America, this European country had recently undergone a revolution.

ANSWER: France [accept French First Republic]

4. The narrator of one of this author's poems pleads, "Christ save us all from a death like this / On the reef of Norman's woe!" For 10 points each:

[10] Name this American poet who claimed that "the groaning earth...brings forth its races, but does not restore / And the dead nations never rise again" in "The Jewish Cemetery at Newport." He also wrote *Evangeline*.

ANSWER: Henry Wadsworth Longfellow

[10] A poem by Longfellow describes the “ride” of this Revolutionary War hero, whose friend “climbed the tower of the Old North Church” in accordance with his directions to “hang a lantern...one, if by land, and two, if by sea.”

ANSWER: Paul **Revere**

[10] After the title character of Longfellow’s “Song of Hiawatha” slays Pearl-Feather, he marries this woman.

ANSWER: **Minnehaha**

5. Augustin-Jean Fresnel proposed that this substance was dragged along by the Earth. For 10 points each:

[10] Name this substance, which was the subject of the Fizeau experiment and the Lorentz-FitzGerald hypothesis.

ANSWER: luminiferous **aether**

[10] The existence of the luminiferous aether was disproved by this experiment, which used an interferometer to measure interference fringes between two orthogonal beams of light.

ANSWER: **Michelson-Morley** experiment

[10] The negative result in the Michelson-Morley experiment was explained by Albert Einstein’s development of this theory, which predicts effects like time dilation and length contraction.

ANSWER: **special relativity** [accept **SR**; prompt on **relativity**]

6. This structure is located in the bony labyrinth and contains the basilar membrane. For 10 points each:

[10] Name this spiraling cavity located in the inner ear which receives sound input via pressure waves propagated by ossicles. It also contains the organ of Corti.

ANSWER: **cochlea**

[10] The medial superior olive determines from which direction a sound originated. That complex is located in this region of the central nervous system, which also contains the pons, medulla, and midbrain.

ANSWER: brain**stem**

[10] Sound waves in the cochlea originate at the base, through this opening which connects the inner and middle ears. Unlike its “round” counterpart, this structure is directly in contact with the stapes.

ANSWER: **oval window**

7. Contemporary physicians supported the idea that this disease was the result of a miasma emanating from contaminated areas. For 10 points each:

[10] Name this disease caused by a *Vibrio* strain that is contracted through exposure to fecal matter and that killed thousands in England during the 19<sup>th</sup> century. It often leads to death by dehydration.

ANSWER: **cholera**

[10] The cholera epidemic was especially deadly in the Soho district of this English capital city during an 1854 outbreak.

ANSWER: **London**

[10] This physician and “father of epidemiology” mapped the epidemic and traced the primary cause of the outbreak to a single water pump on Broad Street.

ANSWER: John **Snow**

8. Identify some aspects of chemical warfare during the 20th century, for 10 points each:

[10] Recently declassified documents suggest that the CIA was complicit in Saddam Hussein's employment of this greenish-yellow lung agent as well as blistering agents like mustard gas in the Iran-Iraq War.

ANSWER: **chlorine** gas

[10] Agent Orange, a defoliant used by the US Army during this conflict, can stay in the body for over a decade. Agent Orange saw particularly heavy use on the Ho Chi Minh Trail in this conflict.

ANSWER: **Vietnam** War

[10] This insecticidal cyanide-based formula produced by Bayer's parent company, IG Farben, was used to massacre Russian prisoners of war and Jews in gas chambers during the Holocaust.

ANSWER: **Zyklon B**

9. Despite being robbed by thieves, former taxi bicyclist Jonathan maintains hope because “nothing puzzles God” in this author’s short story “Civil Peace.” For 10 points each:

[10] Name Nigerian this author, who criticized Joseph Conrad as a racist in his lecture *An Image of Africa*. Ezeulu’s refusal to initiate the New Yam Feast causes villagers to convert to Christianity in his novel *Arrow of God*.

ANSWER: Chinua **Achebe** [or Albert **Achebe**]

[10] In this debut novel by Achebe, Okonkwo kills his adopted son Ikemefuna and is exiled from Umuofia after he accidentally kills another boy. By the time Okonkwo returns, his village has been colonized.

ANSWER: **Things Fall Apart**

[10] This sequel to *Things Fall Apart* details Obi Okonkwo’s return to Nigeria after studying in England. In this novel, Obi impregnates the *osu* Clara and eventually succumbs to corruption.

ANSWER: **No Longer at Ease**

10. This country was home to the EAM, or the National Liberation Front, during World War II. For 10 points each:

[10] Name this country that saw a 1946 to 1949 civil war and the Regime of the Colonels twenty years later. Far right groups in this country like Golden Dawn express approval of the authoritarian 1936-1941 regime here.

ANSWER: **Greece** [or **Hellenic Republic**]

[10] Over a century earlier, Alexander Ypsilantis, a leader of Filiki Eteria, led an insurrection that attempted to free the Greeks from this Muslim Turkish Empire that controlled much of eastern Europe.

ANSWER: **Ottoman** Empire [or Devlet-i Âliyye-i **Osmâniyye**]

[10] In 1821, Alexander Ypsilantis formed a battalion of young Greek soldiers in Wallachia that was known as the Sacred Band, a name used much earlier by an elite force of 150 gay couples that defended this Greek city-state.

ANSWER: **Thebes**

11. In one work, this thinker presented seven propositions of which the first is “The world is everything that is the case.” For 10 points each:

[10] Name this 20<sup>th</sup>-century Austrian philosopher of language and mind who wrote *Tractatus Logico Philosophicus*.

ANSWER: Ludwig **Wittgenstein**

[10] Wittgenstein rejected his earlier pictorial definition of language in this late work, which uses the “duckrabbit” illusion to illustrate the difference between “seeing that” and “seeing as.”

ANSWER: **Philosophical Investigations**

[10] In *Philosophical Investigations*, Wittgenstein presents this thought experiment about “private language.” It imagines that each person defines the title insect by a particular specimen he possesses that no one else can see.

ANSWER: **beetle in a box**

12. This painting depicts Justinus van Nassau giving up his keys after a certain Spanish success in the Eighty Years’ War. For 10 points each:

[10] Name this painting that celebrated the achievements of the artist’s countryman Ambrogio Spinola, who conquered the titular Dutch city against the wishes of his advisers.

ANSWER: *The **Surrender of Breda*** [or *La **rendicion de Breda***]

[10] This artist of *The Surrender of Breda* also painted a naked woman looking into a mirror in the *Rokeby Venus*. His best-known work shows the ladies-in-waiting of the Infanta Margaret Theresa.

ANSWER: Diego **Velázquez**

[10] In this aforementioned work, the princess is accompanied by two dwarfs and a boy who tries to wake a dog by stepping on it. Velazquez appears on the left behind an easel, and the king and queen appear in a mirror.

ANSWER: **Las Meninas**

13. Answer the following about syncretism in Latin America, for 10 points each:

[10] Mexicans construct altars and create icons of La Catrina in order to celebrate this holiday, which takes place on November 1 and 2. It involves the celebration of the spirits of those who have passed away.

ANSWER: **Day of the Dead** [or el **Día de los Muertos**]

[10] Catholicism and Yoruban traditions blend in this Cuban religion also known as Lucumi, which has recently come under criticism for its permission of animal sacrifice.

ANSWER: **Santería**

[10] Adherents to this other Yoruban religion congregate at open spots called *terreiros*. It's most popular today in Brazil. Like in Santería, adherents believe in orishas and are called the "povo de santo."

ANSWER: **Candomblé** [or **Macumba**]

14. The Archipelago Ring Road connects the cities in this country's Archipelago Sea. For 10 points each:

[10] Name this Scandinavian country that contains the region of North Karelia and the Swedish-speaking Åland Islands, and which has its capital on the shore of a namesake gulf.

ANSWER: Republic of **Finland** [or **Suomi**]

[10] The Gulf of Finland is an arm of this body of water, whose coast contains the cities of Kaliningrad, Gdansk, and St. Petersburg.

ANSWER: **Baltic** Sea

[10] This northernmost arm of the Baltic Sea is situated between Finland and Sweden. Its Swedish name essentially translates to "the Gulf-gulf."

ANSWER: Gulf of **Bothnia** [or **Pohjanlahti**; or **Bottniska** viken]

15. This is a popular real-time-strategy game published by Blizzard. For 10 points each:

[10] Name this sequel game extremely popular in South Korea, in which players pick one of three races with which to do battle and whose latest expansion was *Heart of the Swarm*.

ANSWER: **StarCraft 2** [do not accept or prompt on "Starcraft"]

[10] This race in StarCraft 2 features units such as queens and ultralisks and is known for its ability to macro well and generally overwhelm opposing players with waves of units.

ANSWER: **Zerg**

[10] The Protoss hero Zeratul is one of these units, also known as the Nerazim. One of their abilities allows two of them to merge into an Archon that is colored red, unlike the normal blue.

ANSWER: **Dark Templars** [do not accept or prompt on "High Templar"; prompt on "Templar"]

16. Following the wedding of Pirithous to Hippodamia, these creatures engaged in a battle with the Lapiths that resulted in the death of Caeneus. For 10 points each:

[10] Name these creatures in Greek mythology who had the torsos of humans but the lower bodies of horses. One of them, Chiron, tutored many young heroes like Jason and Achilles.

ANSWER: **centaurs**

[10] The first centaurs were created when this man, who lusted after Hera, mated with the cloud nymph Nephele who had been made to take Hera's form.

ANSWER: **Ixion**

[10] As punishment for Ixion's advances on his wife, Zeus had him bound to a wheel with this phenomenon. This was used by Heracles to seal the Hydra's heads shut, and was given to mankind by Prometheus.

ANSWER: **fire** [accept equivalents, like "it's **burning**"]



17. It begins with its narrator describing the derision he encounters when he explains his drawing of a boa constrictor that has swallowed an elephant. For 10 points each:

[10] Name this novella, whose narrator encounters an interplanetary visitor after his plane crashes. Over the next eight days, the title character of this work describes his visits to asteroids before dying of snakebite.

ANSWER: *The Little Prince* [accept *Le Petit Prince*]

[10] *The Little Prince* was written by this Frenchman, who described his own plane crash in the Sahara in *Wind, Sand, and Stars*.

ANSWER: Antoine De Saint-Exupéry

[10] The title character of *The Little Prince* describes his infatuation with this incredibly needy flower, which he leaves behind to explore the universe.

ANSWER: the rose

18. Answer the following about prefixes in organic chemistry, for 10 points each:

[10] This four-letter prefix describes a substituent carbon chain with just one saturated carbon atom. The simplest alkane, CH<sub>4</sub>, begins with this prefix.

ANSWER: meth- [or methyl; or methane]

[10] Straight-chain alkanes can be denoted by placing this letter in front of the alkane's name. This letter is also used in prefixes of substituted amides, to represent the element on which the alkyl group resides.

ANSWER: n

[10] This prefix denotes two substituents on a benzene ring which are on adjacent carbons. Activating groups promote electrophilic attack at this position and at the para position.

ANSWER: ortho

19. In this system, the *veigun* are traded north and the *mwal* are traded south. For 10 points each:

[10] Name this system of exchange in Papua New Guinea that is often studied alongside the potlatch.

ANSWER: kula ring [or kula exchange]

[10] This Polish anthropologist studied the kula ring in *Argonauts of the Western Pacific*, based on his studies of the people of the Trobriand Islands.

ANSWER: Bronislaw (Kasper) Malinowski

[10] The study of the kula ring prompted an anthropological debate about economies based on this exchange, which Maurice Leenhardt, a student of another Frenchman, claimed depended on "total prestation" that gives this mechanism spiritual significance.

ANSWER: gift exchange [accept le don; accept gift-giving and equivalents]

20. The impetus for writing this work was to introduce children to the sounds of different orchestral instruments. For 10 points each:

[10] Name this piece, commissioned in 1936 for the Central Children's Theatre in Moscow. Its two title characters are represented by the string section and three horns, respectively.

ANSWER: Peter and the Wolf [or Petya i volk]

[10] This Russian composer of *Peter and the Wolf* had his first major success with the *Scythian Suite*, which was based on his ballet *Ala i Lolli*.

ANSWER: Sergei Prokofiev

[10] In *Peter and the Wolf*, the cat is represented by this instrument. A concerto for this instrument written in 1791 was composed for Anton Stadler.

ANSWER: clarinet

21. For cases in which the source velocity exceeds the propagation speed of a medium, this phenomenon leads to the formation of a Mach cone. For 10 points each:

[10] Name this phenomenon which is caused by the compression or expansion of wavefronts when a source moves relative to an observer, changing the frequency.

ANSWER: **Doppler** effect [or **Doppler** shift]

[10] An example of the Doppler effect is this phenomenon observed with electromagnetic waves. This phenomenon is observed when a light source moves very rapidly away from the observer, causing an increase in wavelength.

ANSWER: **redshift** [prompt on things like “it gets redder,” since “redshift” is an actual term; do not accept “blueshift”]

[10] Lord Rayleigh predicted that if a music source moves towards a listener at twice the speed of sound, the music will still be heard in the correct pitch and time, but will have this notable difference.

ANSWER: it will be **played backwards** [accept equivalents]

X. While the central family of this novel is gathered in church, the narrative switches to three flashbacks, offered by Florence, Elizabeth, and a preacher who has an affair with Esther. For 10 points each:

[10] Name this novel in which that preacher, Gabriel Grimes, heavily favors his son Roy, over his stepson John. In the final section of this novel, set on John’s fourteenth birthday, he falls to the floor, seized with religious fervor.

ANSWER: **Go Tell It On the Mountain**

[10] *Go Tell It On the Mountain* is a novel by this African American author of *The Fire Next Time*. The title character is guillotined for killing his former lover Guillaume in his novel *Giovanni’s Room*.

ANSWER: James **Baldwin**

[10] *Go Tell It On the Mountain* is set in this New York neighborhood, which experienced a namesake “Renaissance” that included Countee Cullen and Zora Neale Hurston.

ANSWER: **Harlem**

X. For 10 points each, answer some questions about ancient language tablets:

[10] The Rosetta Stone was discovered by this man’s soldiers during the French expedition to Egypt. This emperor may be more famous for losing to the Duke of Wellington at Waterloo.

ANSWER: **Napoleon** I Bonaparte [prompt on “Bonaparte”]

[10] This script, which disappeared during the Greek Dark Age and was deciphered by Michael Ventris, was used to keep inventory at cities like Mycenae. It is believed to be the precursor to ancient Greek.

ANSWER: **Linear B**

[10] The Myazedi Inscription is often called this nation’s Rosetta Stone, as it allowed the deciphering of the Pyu language. During World War II, this nation’s namesake road was used by the British to supply China.

ANSWER: **Burma** [accept **Myanmar**]

X. Identify the following about minerals found on Bowen’s reaction series, for 10 points each:

[10] This mineral, whose types make up most of the continuous branch of Bowen’s reaction series, is the most abundant mineral in the Earth’s crust. Subtypes of this mineral include plagioclases and orthoclases.

ANSWER: **feldspars**

[10] Plagioclase feldspars at the top of Bowen’s reaction series, known as anorthites, are very rich in this element, which is replaced by sodium as one moves down the series. Its carbonate makes up limestone.

ANSWER: **calcium**

[10] This magnesium-iron silicate mineral is found at the top of the discontinuous branch. It is abundant in the upper mantle and its variant, peridot, is sometimes used as a gemstone.

ANSWER: **olivine**