ACF Fall 2014: Nemo auditur propriam derpitudinem allegans

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## **Tossups**

1. During this war the untreated hair of Mary Babnik Brown was donated to the military for use in crosshairs, including those in the Norden bombsight that was first introduced during this war. A piece of legislation passed during this war was compared to helping a neighbor put out a fire with a garden hose. "Golden Diamond" and "Red Ball Express" were major supply operations during this war. The United States produced Sherman tanks, P-51 Mustangs, and the sometimes shoddily-built Liberty ships during this war, during which it assisted its allies via the Lend-Lease Act. For 10 points, name this war which the United States entered after the Japanese attack on Pearl Harbor.

ANSWER: World War II [or Second World War; or WWII]

2. This author created a character who accidentally steps in a patch of snow in which the name of his unrequited love is written. This author wrote about a man who recognizes three moles on the skin of a young kendo student and believes that the student is the reincarnation of his friend Kiyoaki. The protagonist of a semi-autobiographical novel by this writer admires a picture of a knight until a nun tells him that it depicts Joan of Arc. This author wrote from the perspective of Kochan in Confessions of a Mask and wrote about Shigekuni Honda in novels like Spring Snow and The Temple of Dawn. For 10 points, name this Japanese author of The Sea of Fertility tetralogy.

ANSWER: Yukio Mishima [or Mishima Yukio; or Kimitake Hiraoka; or Hiraoka Kimitake]

3. One of this director's films opens with a wide-eyed man's translucent head floating in front of a small planet; a man in that planet pulls a lever after the translucent head opens his mouth and a huge sperm-like thing comes out. That movie by this director centers on the crazy-haired Henry Spencer. In another of his films, Betty meets an amnesiac who calls herself "Rita," and they both switch identities with Diane Selwyn and Camilla Rhodes after opening a mysterious blue box. That film by this director stars Naomi Watts and Laura Harring. For 10 points, name this director known for surrealist films like *Eraserhead* and *Mulholland Drive*, as well as the TV series *Twin Peaks*.

ANSWER: David Lynch [or David Keith Lynch]

4. This book's author says that one is tempted to write a "manual of happiness" when attempting to understand this essay's main concept. This book claims that the "act of eluding" is committed by those who become used to the "habit of living." This essay argues that the character Kirilov from Dostoyevsky's *The Possessed* kills himself in order to become God by showing his freedom. This essay concludes that its title character's "fate belongs to him" because he acknowledges the absurdity of his condition, and "one must imagine [him] happy." For 10 points, name this essay about a Greek hero who continuously rolls a boulder up a hill, written by Albert Camus.

ANSWER: The Myth of Sisyphus [or Le Mythe de Sisyphe]

5. This country's tourist industry was targeted by the Thousand Mark Blockade, and it is the subject of the so-called "Victim theory." A leader of this non-Bulgaria country was assassinated by Otto Planeta and used the crutch cross to symbolize his Fatherland Front party. A president of this country, Wilhelm Miklas, was forced to appoint Arthur Seyss-Inquart as its chancellor. This country was ruled by the diminutive fascist Engelbert Dollfuss. This country was dubbed "Ostmark" after it was annexed by a neighbor in 1938. For 10 points, name this country which was united by the Anschluss with Germany, and had earlier been part of a dual monarchy with Hungary.

ANSWER: Austria

6. After meeting a son of this god and Aphrodite, the nymph Salmacis prayed that the two of them would never part. At the end of the *Iliad*, this god protects Priam as he attempts to retrieve the body of Hector. Zeus hid this god's mother in a cave in Cyllene. Soon after his birth, this son of Maia stole the cattle of Apollo. This god's granddaughter Anticleia was seduced by Sisyphus, making Odysseus a descendant of this god, who gave his great-grandson moly as protection against Circe. The Rod of Asclepius is often mistaken for this god's symbol, which is the caduceus. For 10 points, name this Greek messenger god who wore winged sandals.

ANSWER: **Hermes** [accept **Mercury** until "Iliad"]

7. This compound reacts with hydrogen cyanide to produce methyl methacrylate, which is polymerized to form acrylic glass. Some bacteria in the *Clostridium* genus ferment starch into ethanol, butanol, and this compound. This compound is produced along with phenol from benzene and propylene in the Cumene process, and can be produced directly from the oxidation of propylene. It's not an acid, but this compound can result in halitosis after being produced during fatty acid metabolism. Due to its low volatility, this compound is also used for cleaning laboratory glassware. For 10 points, identify this simplest ketone, commonly found in nail polish remover.

ANSWER: <u>acetone</u> [or <u>propanone</u> or <u>C3-H6-O</u>]

8. A character in this novel ties together a piece of wood and a strip of iron which he gives to a woman, claiming it is a silver cigarette case. This novel's protagonist imagines a peasant named Mikolka brutally whipping a mare to death in a dream. This novel's protagonist is urged on when another character gives him a cross belonging to Lizaveta. Although Svidrigailov commits suicide in this novel when he is rejected by Dounia, its protagonist still turns himself in on the urging of his lover Sonya. This novel's protagonist views himself as a "Napoleon" in killing Alyona Ivanovna, an old pawnbroker. For 10 points, name this novel about Rodion Raskolnikov, written by Fyodor Dostoyevsky.

ANSWER: Crime and Punishment [or Prestupleniye i Nakazaniye]

9. In one Titian painting, an organist leers at this figure, while in another, she tilts her head to one side and clutches her hair in her hands to dry it. In one painting, this figure looks on while satyrs clinging to a spear playfully try to wake her sleeping brother. In another painting, an old woman to the left of this figure clutches her head in her hands and screams, while a boy to this figure's right prepares to throw a bunch of rose petals at her. She stands in an arch in the center of *Primavera*. In another painting by the same artist, a woman hands a red robe to this goddess as a winged zephyr blows her to shore. For 10 points, name this Roman goddess whose birth was depicted by Botticelli.

ANSWER: **Venus** [do not accept "Aphrodite"]

- 10. This polymer can be deacetylated using sodium hydroxide to form a compound used as a pesticide and coagulant. Because members of the genus *Rozella* do not synthesize this material, they are placed in a separate clade called cryptomycota. In some invertebrates, the protein sclerotin cross-links with this substance. Teeth containing this substance lie in a membrane on the odontophore in the radulas of some molluscs. This material consists of N-acetyl-glucosamine monomers linked by beta 1,4 bonds, giving it a toughness suitable for inclusion in the cell walls of fungi. For 10 points, name this polysaccharide which forms part of the exoskeletons of arthropods.
  - ANSWER: chitin [prompt on "N-acetylglucosamine", "NAG", or "GlcNAc" until mentioned]
- 11. During this dynasty, farmers were able to borrow grain via the Green Sprout Act. Su Dongpo was exiled for criticizing this dynasty's New Policies, which included a system of local government called Baojia. It is not the Han, but the historian Sima Guang lived during this dynasty, as did reformer Wang Anshi. It coexisted with the Liao dynasty and was destroyed at the naval battle of Yamen. After its emperor was abducted by Jurchens, this dynasty began its Southern period. During this dynasty, the civil service system was formalized and gunpowder was invented. For 10 points, name this Chinese dynasty which was conquered by the Mongol Yuan dynasty.
  - ANSWER: **Song** dynasty [or Northern **Song**; or Southern **Song**; or **Sung** Chao]
- 12. In one of this composer's works, a chorus sings exhortations like "Sound the trumpets! Beat the drums! Sports prepare!" Another of his works includes a chorus with fast violin parts depicting "all manner of flies and lice in all their quarters." This composer included the chorus "See the Conqu'ring Hero Comes" in Act III of one of his works. In one of his choruses, the men interject "forever! and ever!" while the women slowly sing "King of Kings and Lord of Lords;" King George II originated the custom of standing for that chorus. For 10 points, name this composer of oratorios like *Israel in Egypt*, *Judas Maccabeus*, and *Messiah*, which includes the "Hallelujah Chorus."
  - ANSWER: George Frideric Handel [or George Friederich Händel, which is pronounced "HEN-dull"]
- 13. In a lecture about these entities, C.P. Snow claimed that "the intellectual life of the whole of western society is increasingly being split" into two of these entities. A type of this concept that values restraint is contrasted with another type that values excess; those two examples, the Apollonian and Dionysian, were described by Ruth Benedict in a work titled for the "Patterns of" this concept. That book also introduced the idea that this concept could only be studied in the context of its containing civilization as a whole; that idea is its namesake relativism. For 10 points, name this anthropological concept representing the collective intellectual achievement of a civilization.
  - ANSWER: <u>culture</u> [or "The Two <u>Cultures</u>"; or Patterns of <u>Culture</u>]

ANSWER: "The Charge of the Light Brigade"

14. In a poem referencing this poem, people visit this poem's author and appeal to him: "you wrote we were heroes once, sir. Please, write we are starving now." That poem by Rudyard Kipling is about the "Last of" the title group of this poem. The subjects of this poem were "storm'd at with shot and shell, / While horse and hero fell," with the survivors returning "thro' the Jaws of Death / Back from the mouth of Hell". Though "someone had blundered," it is not for this poem's characters "to reason why" because "Theirs but to do and die." For 10 points, the fateful offensive of 600 cavalrymen at Balaclava was immortalized in what poem by Alfred Lord Tennyson?

15. Planck's constant is raised to this power in the denominator of the formula for the Rydberg constant. The power needed to overcome the drag force is proportional to this power of velocity. The electric field of a dipole falls off as this power of the distance from it. According to Kepler's second law, orbital period squared is proportional to this power of major axis length. This is the smallest value of n for which the n-body problem is not generally solvable. Jerk is this derivative of position with respect to time. For 10 points, an object's volume is commonly expressed as what exponent of its length units, such a sphere, whose volume equals four-thirds times radius to this power?

ANSWER: **three** [or **third** or **cube**d]

16. Avitus of Vienne corresponded with this ruler, whose paternal grandfather was said to be the child of Pharamond and a sea monster. This man personally axe-murdered a soldier who broke the Vase of Soissons, which was plundered after this man's victory over Syagrius. After he collaborated with the Emperor Anastasius I at the Battle of Vouillé, he was granted the title "consul" according to Gregory of Tours. At the urging of his wife Clotilde, this king and three thousand of his men were baptized by Saint Remigius at Reims. For 10 points, identify this son of Childeric who commissioned the Salic Law and unified the Franks under the Merovingian dynasty.

ANSWER: Clovis I

- 17. One figure associated with this kind of place is the bodhisattva Ksitigarbha ["siti-garba"], who is often depicted carrying a wish-fulfilling jewel and presiding over six roads as the "lord of the six ways". In Buddhism, this region is divided into sixteen "Narakas". In Sumerian belief, the Anunnaki are a group of judges that reside in this type of region, which is called Irkalla and is ruled by Ereshkigal and her husband Nergal. Psychopomps are deities that serve as guides to these locations. In Greek myth, eating half of a pomegranate forced Persephone to live in this place for part of each year as the wife of Hades. For 10 points, identify this type of location that one might go to in the afterlife.

  ANSWER: the **underworld** [or **hell**; or **Naraka** until it is read; or **Irkalla** until it is read; or **Hades** until it is read; prompt on "afterlife" until it is read]
- 18. The speaker of one of this author's poems mentions how the title entity has a song, a sting, and a wing, for "fame is a bee." Another of this author's poems mentions how "A Service...kept beating, beating" and "Mourners to and fro kept treading" as the speaker "heard them lift a box" for "a funeral, in my Brain." In another poem by this author, the speaker recalls pausing before a house, which, because its roof "was scarcely visible," seemed to be "a Swelling of the Ground." The speaker has become "inebriate of Air" and a "Debauchee of dew" in her poem "I Taste a Liquor Never Brewed." For 10 points, name this "Belle of Amherst" who wrote "Because I Could Not Stop for Death." ANSWER: Emily **Dickinson**
- 19. One attraction in this city is actually one story above ground level, since it is built on a massive grid of utility tunnels. Another theme park in this city features live reenactments of the Crucifixion and is called The Holy Land Experience. The first Wet 'n Wild was founded in this city. It's neither San Diego nor San Antonio, but another institution in this city has been attacked by documentaries like *The Cove* and *Blackfish*. A theme park in this city includes a geodesic sphere called "Spaceship Earth," and is named Epcot. This city is home to easternmost SeaWorld and the best-known Universal Studios Resort. For 10 points, identify this location of Disney World.

ANSWER: **Orlando**, Florida

20. Two times this quantity plus four times a related quantity give the second time-derivative of moment of inertia in a gravitational field. For a given inverse-square force, this quantity's average value times one-half equals that related quantity, according to the virial theorem. When a force is inverse-square, this quantity's value is inversely proportional to the first power of distance. This quantity is denoted by V and subtracted in the Lagrangian. This quantity for a spring can be found by integrating Hooke's Law and is equal to "one-half k x-squared." For a mass in a constant gravitational field, this quantity equals "m-g-h". For 10 points, identify this energy stored in a system, contrasted with kinetic energy.

ANSWER: **potential energy** [prompt on just "energy"; do not accept other types of energy]

**Extra** 

In a given topological space, if this function becomes arbitrarily small for any combination of inputs past some point in a sequence, then the sequence is Cauchy. The total number of bits at which a string differs gives the Hamming variety of this quantity. The value of p in an Lp space determines how this quantity is calculated. This function must be zero if and only if the inputs are the same. The sum of absolute differences of coordinates gives the "taxicab" variety of this quantity. Three related values of this function must satisfy the triangle inequality, and the norm gives this value for a vector. For 10 points, give this function that tells you how far apart two points are.

ANSWER: <u>distance</u> [accept <u>metric</u> or <u>length</u>, accept <u>norm</u> before mentioned, accept <u>difference</u> before "Lp" and prompt afterwards]

## **Bonuses**

1. This constellation's star Betelgeuse makes up part of the Winter Triangle. For 10 points each:

[10] Identify this constellation, whose three stars Alnitak, Alnilam, and Mintaka form a namesake "belt." Its brightest star is Rigel.

ANSWER: Orion [accept Orion's belt]

[10] This astronomer's namesake "Loop" is found within Orion. He also names a star which is the closest to Earth after the three in Alpha Centauri.

ANSWER: Edward Emerson Barnard

[10] Also found within Orion is this dark nebula, sometimes called Barnard 33. It resembles part of a certain animal's body.

ANSWER: Horsehead Nebula

2. Identify the following about ballet, for 10 points each.

[10] To dance *en pointe*, ballet dancers have to wear a specialized type of these items, with features like a box at the tip for support.

ANSWER: **shoe**s [accept **pointe shoes** or **ballet shoes** etc.]

[10] Description acceptable. All five positions of the feet require some flexibility, because they involve doing *this*. In fifth position, doing this can be very difficult, since the feet are touching with the calves crossed.

ANSWER: **turning out** [accept word forms like **turnout**; accept any descriptive answer involving the **feet/knees/legs** pointing in **opposite** directions]

[10] In this ballet position, the dancer stands on one leg and raises another behind. In the *penché* kind of this position, the legs form almost a vertical straight line, while the torso is almost horizontal in front.

ANSWER: arabesque

3. Adam Hochschild wrote a book about the "Ghost" of a ruler of this name whose policies were exposed by the Casement Report. For 10 points each:

[10] Give this name of several kings, the second of whom personally owned the Congo Free State.

ANSWER: Leopold

[10] Leopold II ruled this European country, which is split into the regions of Flanders and Wallonia. Its independence from the Netherlands and neutrality were established by the Treaty of London.

ANSWER: Kingdom of **Belgium** [or **België**; or **Belgique**]

[10] In the Congo Free State, Leon Rom headed this infamous police force which would cut off the hands of workers if rubber quotas were not met.

ANSWER: Force Publique [or Public Force; or FP]

- 4. Roger Mexico's organization ACHTUNG realizes that this novel's protagonist's sexual encounters can predict the location of V-2 rocket strikes. For 10 points each:
  - [10] Identify this 1973 novel centering on Tyrone Slothrop, who searches for a special rocket with a component made of Imipolex G.

ANSWER: **Gravity's Rainbow** 

[10] This most recent novel by the author of *Gravity's Rainbow* follows Maxine Tornow's investigations of Gabriel Ice's shady business dealings in the run-up to the 9/11 attacks.

ANSWER: **Bleeding Edge** 

[10] Gravity's Rainbow and Bleeding Edge are novels by this reclusive American novelist, who also penned The Crying of Lot 49.

ANSWER: Thomas **Pynchon** [or Thomas Ruggles **Pynchon**]

- 5. This holiday begins on the 15th of Nisan, and preparation the night before involves the sacrifice of a goat. For 10 points each:
  - [10] Name this religious holiday that commemorates the liberation of the Israelites from slavery in Egypt.

ANSWER: Passover [or Pesach]

[10] Passover includes this feast in which four cups of wine and plenty of matzah are consumed.

ANSWER: seder

[10] Because the Israelites were in such a hurry to leave after being freed by the Pharaoh, they left before even their bread could leaven. Leavened foods are thus referred to by this Hebrew term, and are forbidden on Passover.

ANSWER: chametz

- 6. The Count of Egmont and the Count of Horn were both convicted and executed by this body. For 10 points each:
  - [10] Name this tribunal created by the Duke of Alba to deal with unrest in the early stages of the Dutch Revolt.

ANSWER: **Council of Blood** [or **Council of Troubles**; or **Bloodraad**; or **Raad von Beroerten**]

[10] During the Dutch Revolt, this Belgian city was sacked by mutinous soldiers in the Spanish Fury. Despite the use of fire ships against Alessandro Farnese's pontoon bridges, this city later fell to Spanish besiegers.

ANSWER: Antwerp

[10] A man with this name nicknamed "the Silent" led the Dutch Revolt. Another member of the House of Orange became the third English king with this name following the Glorious Revolution.

ANSWER: William [or William I, Prince of Orange; or William III of Orange; or Willem]

- 7. During this play's Proviso Scene, one character demands that she be allowed to sleep as long as she wants if she marries the protagonist. For 10 points each:
  - [10] Identify this Restoration comedy, in which Mirabell tries to trick Lady Wishfort into consenting to his marriage to Millamant. In it, Mirabell's servant Waitwell pretends to be the wealthy Sir Rowland to woo Wishfort.

ANSWER: The Way of the World

[10] The Way of the World is by this late 17<sup>th</sup> century playwright, who also penned Love for Love and The Mourning Bride.

ANSWER: William Congreve

[10] In Act III of *The Mourning Bride*, Zara famously declares that "Heaven has no rage, like love to hatred turned / Nor hell a fury, like" one of these people "scorned."

ANSWER: a woman

8. The low voltage drop across the Schottky type of this device enables faster switching. For 10 points each:

[10] Identify this circuit element, which ideally only allows current to flow one way. They are often made from doped semiconductor material.

ANSWER: **diode**s

[10] Diodes can be used to help perform this process, in which alternating current is converted to direct current. The most common devices that perform this process are three-phase.

ANSWER: voltage **rectification** [accept word forms]

[10] A very common type of diode is formed at the junction between doped semiconductors of these two types. These two types are distinguished based on whether they have more electrons or holes carrying charge.

ANSWER:  $\mathbf{p}$  and  $\mathbf{n}$  semiconductors [or  $\mathbf{p}$ - $\mathbf{n}$  junction diodes, accept any answer with those two letters]

9. One member of this group wrote the oratorio King David with Paul Claudel. For 10 points each:

[10] Name this group of composers that included Arthur Honegger and Georges Auric.

ANSWER: Les Six [or The Six]

[10] Les Six were a group of six composers who were all inspired by Erik Satie and were active in this European country.

ANSWER: France

[10] This member of the Les Six composed the jazz-influenced *La création du monde, Scaramouche*, and *The Ox on the Roof*.

ANSWER: Darius Milhaud

- 10. This country's large Lakes Kossou and Buyo were created by damming its Bandama and Sassandra Rivers. For 10 points each:
  - [10] Name this country of sub-Saharan Africa, the largest exporter of cacao beans in the world. Its capital is Yamoussoukro. Talks to end an early-2000s civil war in this country took place in its Eastern neighbour, Ghana.

ANSWER: Republic of <u>Côte d'Ivoire</u> [or <u>Ivory Coast</u>; or République de <u>Côte d'Ivoire</u>]

[10] Longtime Ivorian president Félix Houphouët-Boigny ["oo-foo-EH bwahn-YEE"] moved the capital to Yamoussoukro from this city, which remains the most populous in Côte d'Ivoire.

ANSWER: Abidjan

[10] Houphouët-Boigny also constructed this enormous church in Yamoussoukro. This church holds a Guinness World Record as the largest in the world.

ANSWER: Basilica of <u>Our Lady of Peace</u> of Yamoussoukro [or Basilique <u>Notre-Dame de la Paix</u> de Yamoussoukro]

- 11. Because her husband was blind, this queen blindfolded herself as well. For 10 points each:
  - [10] Name this queen, who gave birth to a lump of flesh, the hundred pieces of which developed into the hundred Kaurava brothers.

ANSWER: Gandhari

[10] Before the battle in the *Mahabharata*, Gandhari's eldest son Duryodhana chose to have the army of this blue-skinned avatar of Vishnu on his side, rather than this figure himself.

ANSWER: Krishna

[10] As a result of Duryodhana's choice, Krishna became the charioteer of this Pandava brother. This archer killed the Kaurava warrior Karna because the Kauravas killed this man's son Abhimanyu.

ANSWER: **Arjuna** [or **Arjun**]

- 12. In this show's first episode, the protagonist offends the Master Chef Red and is served a bloody tampon. For 10 points each:
  - [10] Name this series based on Piper Kerman's memoirs. In this series, Taylor Schilling plays Piper and Natasha Lyonne plays Red's assistant Nicky Nichols.

ANSWER: Orange Is the New Black

[10] Orange is the New Black is an original series that is available exclusively on this service. This company's other original series include House of Cards, and its competitors include Hulu.

ANSWER: **Netflix**, Inc.

[10] This animated Netflix original series premiered in August 2014. It stars Will Arnett as the voice of the title equine character, a washed up actor who starred in the '90s sitcom *Horsin' Around*.

ANSWER: BoJack Horseman

13. In this novel, the Japanese ship *Tsimtsum* sinks with many animals from a zoo in Pondicherry. For 10 points each:

[10] Name this novel about a boy who drifts on a lifeboat across the Pacific Ocean to Mexico. This winner of the 2002 Booker Prize was written by Yann Martel.

ANSWER: Life of Pi

[10] Pi Patel shares the boat with this Bengal tiger. The name was inspired by a sailor with the same full name who is cannibalized in Edgar Allen Poe's *The Narrative of Arthur Gordon Pym*.

ANSWER: **Richard Parker** [prompt on partial name]

[10] Yann Martel is an author from this country, where the adult Pi Patel lives.

ANSWER: Canada

14. This man wrote about Native American language in A Key into the Language of America. For 10 points each:

[10] Name this man who founded Providence Plantation after he split with the Puritans over the issue of complete separation from the Church of England.

ANSWER: Roger Williams

[10] Roger Williams's religiously tolerant Providence Plantation grew into what is now this smallest U.S. state.

ANSWER: **Rhode Island** and Providence Plantations

[10] This Native American tribe sold Roger Williams the land that became Providence Plantation. During the Pequot War, Williams convinced this tribe to side with the English colonists.

ANSWER: Narragansett

15. This substance was the only organic starting chemical in the Miller-Urey experiment. For 10 points each: [10] Name this simplest hydrocarbon, which consists of four hydrogen atoms bonded to a central carbon atom.

ANSWER: **methane** [prompt on **CH**<sub>4</sub>]

[10] The amino acids generated in the Miller-Urey experiment were thought to be produced via this reaction. In this reaction, an imine is attacked by a cyanide ion to form a nitrile, which is subsequently hydrolyzed.

ANSWER: Strecker synthesis

[10] In the original experiment, the "paper" type of this laboratory technique was used to detect amino acids. More modern instances of the experiment have detected amino acids like isovaline using the "liquid" type of this technique.

ANSWER: chromatography [accept paper chromatography or liquid chromatography]

- 16. This story's title character begins to cry after noticing the people around her greedily eating their food, reminding her of how she had earlier offered them a basket of food. For 10 points each:
  - [10] Name this short story in which a group of people escaping from the Franco-Prussian War convince the title prostitute to sleep with a Prussian officer.

ANSWER: "Ball of Fat" [or "Boule de Suif"; accept alternate translations like "Butterball" or "Ball of Lard"]

[10] "Ball of Fat" is a short story by this French author of the stories "The Necklace" and "Mademoiselle Fifi."

ANSWER: Guy de Maupassant [or Henri René Albert Guy de Maupassant]

[10] In this Maupassant novel, Madeleine Forestier helps Georges Duroy write articles for the newspaper *La Vie Francaise*. Duroy has affairs with numerous women while rising through the ranks of Parisian society.

ANSWER: **Bel-Ami**; or The History of a Scoundrel

17. This artist is perhaps the most prominent member of *De Stijl* ["de style"]. For 10 points each:

[10] Name this painter whose compositions featured black and white grids shaded with yellow, red, and blue. In 1920, Léonce Rosenberg published a collection of this man's writings in the booklet *Le Néo-plasticisme*.

ANSWER: Piet Mondrian [or Pieter Cornelis Mondriaan]

[10] This late masterpiece of Mondrian uses yellow gridlines instead of black ones. As its title suggests, it was inspired by the layout and music of New York City and is currently housed there, in the MoMA.

ANSWER: Broadway Boogie Woogie

[10] This designer created a Mondrian-inspired line of day dresses. This protegé of Christian Dior created the first major tuxedo for women, as well as scents like *Opium* and *Rive Gauche*.

ANSWER: Yves [Henri Donat Mathieu-] Saint Laurent

18. Identify the following about European taxation, for 10 points each.

[10] In the Holy Roman Empire, the *Goldener Opferpfennig* was a protection tax levied on practitioners of this religion. Massacres targeting members of this religion are called pogroms.

ANSWER: Judaism

[10] In Anglo-Saxon England, the Danegeld tax was raised to pay off Viking raiders and was first instituted after this king's loss at the Battle of Maldon. This king's nickname of "Unready" refers to the bad advice he got from counselors.

ANSWER: Aethelred the Unready [or Aethelred II]

[10] The implementation of this French tax in Normandy led to the nu-pied revolt. This extremely unpopular salt tax was evaded by smugglers known as *faux-sauniers*.

ANSWER: the Gabelle

- 19. Answer the following about unusual animal defense mechanisms, for 10 points each.
  - [10] When threatened by predators, some members of this class of echinoderms can eviscerate themselves by ejecting sticky tubules through their anus.

ANSWER: **Holothuroidea** [or **sea cucumbers**]

[10] As a last resort, the Texas horned lizard uses its eyes to spray predators with a stream of this substance.

ANSWER: blood

[10] In a process known as caudal autotomy, some geckos are able to leave behind this body part when it is grabbed by predators. In that process, caudal muscles break apart vertebrae in order to sever this body part.

ANSWER: tails

- 20. This University of Pennsylvania professor used the acronym PERMA to outline values in positive psychology. For 10 points each:
  - [10] Name this psychologist who showed that animals that are repeatedly given electric shocks will later submit to the electric shocks even when given a chance to escape. He named that phenomenon "learned helplessness."

ANSWER: Martin Seligman

[10] Seligman's experiments used these animals. Ivan Pavlov made a breakthrough while studying the salivary responses of these animals.

ANSWER: **dog**s [or any specific kind of dog]

[10] Pavlov's dogs learned to salivate in response to the sound of a bell; that learning is an example of this phenomenon.

ANSWER: <u>classical conditioning</u> [accept <u>respondent conditioning</u>; or word forms like "they were <u>classically conditioned</u>"; prompt on "conditioning"; do not accept "operant conditioning"]

## **Extra**

Identify the following about Tennessee during the Civil War, for 10 points each.

[10] This Tennessee battle resulted in the defeat of General Beauregard and the death of Albert Sidney Johnson after Confederate forces were stalled by Benjamin Prentiss, who had established position in the "Hornet's Nest."

ANSWER: Battle of **Shiloh** [accept Battle of **Pittsburg Landing**]

[10] Grant earned the nickname "Unconditional Surrender" after forcing John Floyd, Simon Bolivar Buckner, and Gideon Pillow to give up this Tennessee fort.

ANSWER: Fort **Donelson** 

[10] Tennessee was the birthplace of war criminal Nathan Bedford Forrest, who founded this organization after the Civil War and served as its Grand Wizard.

ANSWER: Ku Klux Klan [or KKK]

Each term in this sequence is the sum of the previous two. For 10 points each:

[10] Identify this sequence introduced by an Italian mathematician, which begins 1,1,2,3,5.

ANSWER: **Fibonacci** numbers [or **Fibonacci** sequence]

[10] The Fibonacci numbers can be found as the sum of the shallow diagonals in this construct, whose entries are just the binomial coefficients.

ANSWER: Pascal's triangle

[10] This constant appears in Binet's formula for the nth Fibonacci number. If a regular pentagon has sides of length one, then its diagonals all have this length.

ANSWER: golden ratio [or phi or (1+sqrt5)/2]