

Round 2 1st Section Toss-up Questions

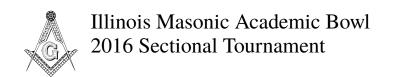
Question #1: Science – Astronomy

10 points

Before this astronaut was allowed to return to space, he	Alan Shepard
needed surgery for Ménière's [mayn-YAIR'Z] disease,	
which affects the inner ear. He became the only one of	
the original Mercury Seven astronauts to walk on the	
Moon. After landing there as part of the Apollo 14	
mission, he hit two golf shots. This person flew in the	
Freedom 7 craft in May 1961. That flight only lasted	
about fifteen minutes, landing near the Bahamas.	
Because of a delay, that flight took place after a <i>Vostok</i>	
1 flight by Yuri Gagarin. Name this astronaut who,	
before John Glenn's orbital mission, became the first	
American in space.	

Question #2: Social Studies – U.S. History

This person changed his last name to Johnson to hide	Frederick Douglass [or
his identity, then changed it again to match characters	Frederick Augustus
in "The Lady of the Lake". In the 1872 presidential	Washington <u>Bailey</u>]
election, he was Victoria Woodhull's running mate for	
the Equal Rights Party. He was the only	
African-American present at the Seneca Falls	
convention, and the story of his life was told in My	
Bondage and My Freedom. This person worked closely	
with William Lloyd Garrison until Garrison burned	
copies of the Constitution. Name this publisher of the	
North Star, an escaped slave who became an	
abolitionist.	
<u>L</u>	1



Round 2 1st Section Toss-up Questions

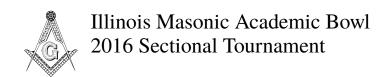
Question #3: Literature – British Literature

10 points

This author wrote of a gate with gold and black	Geoffrey Chaucer
inscriptions, one side of which states, "Through me	
men go into that blessed place." A debate which results	
in the "formel eagle" not choosing a mate occurs at the	
title meeting of birds in this writer's A Parliament of	
Fowls. One of his characters, Madam Eglantine	
[EH-glun-tine], was a prioress; another of his	
characters, who talks about a woman who became	
beautiful after marrying a knight, was the Wife of Bath.	
He wrote about pilgrims on a journey to the grave of	
Thomas á Becket. Name this author of <i>The Canterbury</i>	
Tales.	

Question #4: Miscellaneous – Popular Culture

One album by this band featured a cover designed by	The Beatles
Peter Blake and Jann Haworth [HAH-wurth] showing	
them in front of dozens of celebrities. Another of their	
album covers shows them crossing the street, with the	
person in front wearing white. One song by this band	
features "a sermon that no one will hear" written by	
Father McKenzie. That song by this band was paired	
with another that describes a "sky of blue and sea of	
green." Those songs are "Eleanor Rigby" and "Yellow	
Submarine". Name this British band that featured	
Ringo Starr on drums and Paul McCartney on bass	
guitar.	



Round 2 1st Section Toss-up Questions

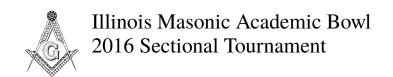
Question #5: Science – Biology

10 points

A model for the development of these structures claims	flower s [prompt on petal s or
that the A, B, and C transcription factors affect	angiosperms]
development of different parts of these structures.	
Double fertilization takes place inside of these	
structures. The corollas [kuh-ROH-luhz] that form	
these structures tend to have four or five parts in dicots	
["DIE-cots"], but three or six parts in monocots	
[MAH-noh-"cots"]. The sepal [SEE-pul] is found	
under these structures. They often attract pollinators	
with their nectar. Name these reproductive structures in	
plants, composed of petals.	

Question #6: Literature – Mythology

In China, one of the gods of this phenomenon was Hui	<u>fire</u> [or <u>flame</u> s]
Lu [wee loo], who kept birds in his gourd. In Norse	
mythology, the realm devoted to this phenomenon is	
populated by the Eldjötnar [ELD-yoht-nar]. That realm,	
Muspelheim [MOOS-pul-hyme], is ruled by Sinmara	
and Surt. Like Loki in Norse mythology, in Native	
American mythology Coyote steals this phenomenon	
for humans. In Greek mythology, Zeus hid this from	
humans after being tricked by Prometheus, but	
Prometheus took it back. Name this hot, light	
phenomenon that several mythologies predict will be	
used to end the world.	



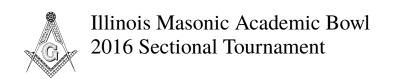
Question #7: Mathematics – Probability

10 points per part

This	s operation gives the number of ways that items	
can	be selected from a group if order matters.	
1	Name this operation often contrasted with	permutation [prompt on
	combination.	n P r]
2	In how many ways can 3 items be chosen from a	<u>60</u>
	pool of 5 items, if order matters?	
3	Divide 7 factorial by the quantity 7 permutation 5.	2

Question #8: Mathematics – Probability

The	se diagrams are Euler [OY-lur] diagrams in which	
ever	ry possible combination is shown.	
1	Name these diagrams in which sets are often	<u>Venn</u> diagrams
	represented as overlapping circles.	
2	If there are a total of 7 elements in set A , a total of	4 elements
	9 elements in set B , and 3 elements common to	
	both sets, then how many elements are in set A but	
	not in set B ?	
3	In the same situation, find the probability that an	1/3 [or 0.3 repeating]
	item in set B chosen at random is also in set A .	
	Again, the situation is that there are 7 elements in	
	set A , 9 elements in set B , and 3 elements in both	
	sets.	



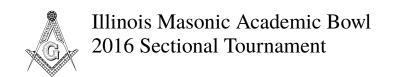
Question #9: Social Studies – Psychology

10 points per part

The	Bobo doll experiment tested observational	
lear	ning in this type of person.	
1	Name this group of people who experience the first three of Jean Piaget's [jeen pee-ah-jay's] four stages and the first four of Erik Erikson's eight stages.	<pre>children [accept equivalents such as young people or kids; prompt on students or babies or infants]</pre>
2	In the Little Albert experiment, John Watson affected a child's reactions to other objects by making loud noises to coincide with interactions with this kind of animal.	(white or brown) <u>rat</u> [or <u>R</u> attus <u>norvegicus</u>]
3	In that experiment, Watson's actions were an example of this form of conditioning, in which the subject eventually pairs an unconditioned stimulus with a conditioned response.	<u>classic</u> al conditioning

Question #10: Social Studies – Psychology

The	tobacco industry was alleged to have influenced	
the s	science behind the formulation of the "type A"	
theo	ry of this concept.	
1	Name this concept that incorporates the way a	<u>personality</u>
	person thinks, feels, and behaves. The	
	Myers-Briggs test for it gives results such as INTJ	
	and ESFP.	
2	The Myers-Briggs test is grounded in the work of	Carl (Gustav) Jung [yoong]
	this psychotherapist, who introduced the concepts	
	of anima and animus.	
3	Participants in this personality test are shown a	Rorschach inkblot test
	series of inkblots and asked to interpret what they	
	see.	



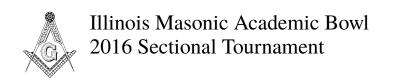
Question #11: Science – Physics

10 points per part

This	s quantity is equal to the cross product of the lever	
arm	with the applied force.	
1	Name this quantity, the rotational analogue of	<u>torque</u>
	force.	
2	If moment of inertia is constant, torque divided by	angular acceleration or
	moment of inertia equals this quantity — a fact	rotational acceleration [do
	analogous to Newton's second law.	not prompt on
		"acceleration"]
3	For a solid sphere with uniform density, the moment of inertia about an axis through the center is equal to this value times the sphere's mass times	<u>2/5</u> [or 0 <u>.4</u>]
	its radius squared.	

Question #12: Science – Physics

The	conservation law for this quantity can be used to	
deri	ve the equation of motion for an ideal rocket.	
1	Name this quantity equal to mass times velocity.	linear momentum [do not accept "angular momentum" or "rotational momentum"]
2	This term refers to a change in momentum. It is	<u>impulse</u>
	equal to the integral of force with respect to time.	
3	The Heisenberg uncertainty principle applies to	<u>zero</u>
	position and momentum because the commutator	
	of the two variables does <i>not</i> have this value.	



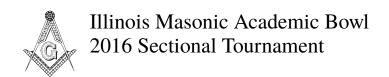
Question #13: Literature – World Literature

10 points per part

This character attempted to distract a scholar by		
takii	ng him to a witches' sabbath on Walpurgis	
[VA	HL-pur-gis] Night.	
1	Name this incarnation of the devil who first appears	Mephistopheles [or
	in the form of a poodle. His attempt to claim one	Mephisto; do not accept
	man's soul was thwarted by angels using rose	"Satan", "Lucifer", or other
	petals.	putative synonyms]
2	Mephistopheles made a bet with God about the	Dr. Heinrich Faust [accept
	soul of this German scholar.	Doctor Faustus]
3	This German author of <i>The Sorrows of Young</i>	Johann Wolfgang von
	Werther [VAIR-tair] wrote of the seduction and	Goethe [GRR-tuh]
	redemption of Gretchen in Faust.	

Question #14: Literature – World Literature

Alge	erian author Kamel Daoud [kah-mel dah-ood]	
re-w	orked this text, telling it from a different	
pers	pective.	
1	Name this novel in which the narrator, who does	The <u>Stranger</u> [or
	not cry at his mother's funeral, shoots an Arab.	<u>L'Etranger</u>]
2	The Stranger is by this French author.	Albert <u>Camus</u> [al-"bear" kam-oo]
3	Daoud's novel, The Meursault [mair-sawl]	younger brother [accept
	<i>Investigation</i> , is told from the perspective of Harun	sibling]
	[hah-ROON], who had this relationship with the	
	Arab whom Meursault shot.	



Round 2 3rd Section Toss-up Questions

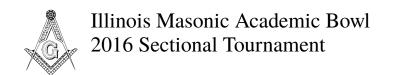
Question #15: Fine Arts – Art History

10 points

This city is the home of the Archbasilica of St. John	Rome, Italy [or Roma; do
Lateran, which is behind the largest of this city's	not accept "Vatican (City)"]
thirteen major obelisks. For many years, this city's	
largest building was a round structure designed as a	
mausoleum, Castel Sant'Angelo. This city's Trinita dei	
Monti Church is at the top end of a set of 135 steps	
leading from its Spanish Embassy. Nicola Salvi	
designed its Trevi Fountain. The world's largest	
unreinforced concrete dome, which contains an	
enormous oculus [AHK-yoo-lus], is in this city's	
Pantheon. Name this city featuring the Flavian	
Amphitheatre, or Colosseum, which surrounds Vatican	
City.	

Question #16: Mathematics – Math Concepts

The gradient of a function is a "field" in which every	<u>vector</u> (s)
point is one of these objects. A space consisting of	
these objects can be defined using a set called a basis.	
These objects are often represented as a matrix with	
one row or one column. Projecting one of these objects	
onto the coordinate axes gives its components. The dot	
product takes two of these mathematical things and	
produces a scalar. Name this mathematical concept that	
consists of a magnitude and a direction.	



Round 2 3rd Section Toss-up Questions

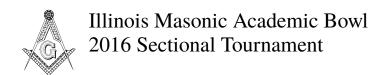
Question #17: Social Studies – World History

10 points

This person disputed the claims of his brother-in-law	<u>Louis</u> XIV [14]
Charles II of Spain, sparking the War of Devolution.	
Following the arrest of Nicolas Fouquet [nee-koh-law	
foo-kay], this person appointed Jean-Baptiste Colbert	
[zhahn bap-teest "coal-bear"] as finance minister. This	
ruler revoked the Edict of Nantes [nahnt] by issuing the	
Edict of Fontainebleau [fawn-ten-bloh]. His grandson	
Philip V gained power in the War of Spanish	
Succession. This leader described his absolute power	
with the phrase "l'etat c'est moi [lay-tah say mwah]",	
meaning "I am the state." Name this French "Sun	
King" who ruled for 72 years.	

Question #18: Science – Chemistry

Two of these things are emitted in the Auger [oh-zhay]	<u>electron</u> s
effect. When sodium is placed into ammonia, a deep	
blue color occurs due to the formation of a salt with	
these as the anion ["AN-ion"]. In organic chemistry, the	
transfer of these things is represented by arrows. These	
things occupy the HOMO but not the LUMO. These	
particles are transferred in a redox reaction. J.J.	
Thomson discovered these particles while working with	
a cathode ray tube. The octet rule says that atoms try to	
have eight of these particles in their valence shells.	
Name these negatively charged particles which	
surround the nucleus of an atom.	



Round 2 3rd Section Toss-up Questions

Question #19: Literature – U.S. Literature

10 points

In one play by this writer, a bride and window dummy appear to argue. In that same play by this author, a conception is signaled when the title mark burns on Serafina's [sair-uh-FEE-nuh'z] chest. This writer of *The Rose Tattoo* wrote about a character who feels a click in his head that makes him peaceful. That character, Brick, describes the experience to Big Daddy. This author also wrote about a woman who loses her home, Belle Reve [bel reev], and goes to stay with her sister Stella Kowalski in New Orleans. Name this playwright of *The Glass Menagerie* and *A Streetcar Named Desire*.

Tennessee <u>Williams</u> [or Thomas Lanier <u>Williams</u> III]

Question #20: Social Studies – Economics

10 points

The rate of this condition is measured using the current population survey, which was revised in 1994. Okun's [OH-kun's] law describes a conditional relationship between the rate of this condition and GDP. Its rate is represented on the *x*-axis in graphing the Phillips curve. The efficiency wage hypothesis argues that this condition results from managers not paying the market-clearing wage. John Maynard Keynes ["canes"] wrote about the cyclic nature of this problem. The frictional form of this condition applies to someone "between jobs". Name this status held by people who are looking for work but who do not currently have a job.

unemployment [accept
being unemployed; accept
employment or being
employed before "Phillips
curve"]



Question #21: Mathematics – Algebra

10 points per part

Several theorems in mathematics are described by this		
word	d; one of them states that every non-constant	
poly	nomial has at least one root in the complex	
num	abers.	
1	Give the name common to these theorems. The example "of calculus" states that integrals can be evaluated using anti-derivatives.	fundamental theorems
2	Credit for the fundamental theorem of calculus is usually given to either Isaac Newton of England or this German mathematician.	Gottfried Wilhelm <u>Leibniz</u>
3	Find both solutions to the equation <i>x</i> squared plus 9 equals 0.	$3i$ and $-3i$ [either order; "or" may be substituted for "and"; accept $\pm 3i$; accept the square root of -1 in place of i]

Question #22: Mathematics – Algebra

On t	he complex plane, these numbers form the	
verti	cal axis.	
1	Name this set of numbers, each of which equals i	(purely) imaginary numbers
	times some real number.	[do not accept "complex
		(number(s))"]
2	This French mathematician developed a formula	Abraham de Moivre [duh
	1	_
	for raising complex numbers to powers, relying on	mwahv]
	the expression of complex numbers in polar form.	
3	Find the value of <i>i</i> raised to the tenth power.	<u>-1</u> [do not accept "1"]
	•	



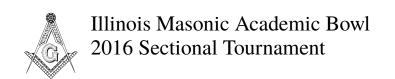
Question #23: Literature – British Literature

10 points per part

One	short story collection by this author opens with	
"The	e Sisters".	
1	Name this Irish novelist who wrote about Stephen	James (Augustine Aloysius)
	Daedalus in A Portrait of the Artist as a Young Man	<u>Joyce</u>
	and <i>Ulysses</i> .	
2	"The Dead" is the last story in this James Joyce	<u>Dubliners</u>
	collection.	
3	In "The Dead", this is the profession of Gabriel	university professor [prompt
	Conroy. The enemy of Sherlock Holmes, James	on <u>teacher</u> or <u>researcher</u>]
	Moriarty, also held this type of job.	

Question #24: Literature – British Literature

Lino	da died from overdosing on this drug, which she	
had	gotten from Dr. Shaw.	
1	Name this fictional drug that causes its user to go on a "holiday". Its effects were described as "all the advantages of Christianity and alcohol, and none of the defects."	soma [SOH-muh]
2	Soma is the drug of choice for the civilized characters in this dystopian [dis-TOH-pee-un] novel in which people are classified as Alpha through Epsilon unless they live on a Savage Reservation.	Brave New World
3	Brave New World is by this author of Point Counterpoint and Crome Yellow.	Aldous (Leonard) Huxley



Question #25: Social Studies – World History

10 points per part

This	s leader wrote a Defense of the Seven Sacraments	
that	led to Pope Leo X granting him the title	
"Det	fender of the Faith".	
1	Name this king who was later excommunicated	Henry VIII [8] [prompt on
	following his break with the Catholic Church, as he	<u>Henry</u>]
	sought to divorce Catherine of Aragon in order to	
	marry Anne Boleyn [boh-LIN].	
2	This adviser to Henry VIII refused to recognize the	Sir Thomas More
	monarch as leader of the Anglican Church, for	
	which he was beheaded. This man also wrote	
	Utopia.	
3	Edward VI [6], the only son of Henry VIII, was	Lady Jane Grey [accept
	succeeded by this cousin. After nine days, this	Lady Jane Dudley]
	noblewoman was replaced by Bloody Mary.	

Question #26: Social Studies – World History

["Bl Kan	s event began at the Bürgerbräukeller URGER-brow"-KELL-ur] and relied on the hpfbund [KAHMPF-boond] for paramilitary bort.	
1	Name this attempt to overthrow the government, launched in Munich [MYOO-nik] in 1923.	Beer Hall Putsch [prompt on Munich Putsch]
2	The self-proclaimed "drummer" of the Kampfbund was this future Chancellor of Germany.	Adolf <u>Hitler</u>
3	While in prison for his role in the Putsch, Hitler dictated the first portion of his autobiography <i>Mein Kampf</i> to this man, his personal secretary. This deputy leader of the Nazis eventually was captured in Scotland.	Rudolf <u>Hess</u>



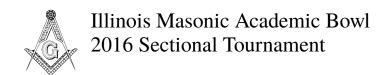
Question #27: Fine Arts – Classical Music & Opera

10 points per part

Each of these violin concertos [kun-"CHAIR-toes"] is		
paired with a sonnet.		
1	Name these pieces published in 1725 as part of <i>The</i>	The Four Seasons [or Le
	Contest Between Harmony and Invention.	<u>quattro stagioni</u>]
2	The Four Seasons were written by this composer,	Antonio <u>Vivaldi</u>
	who was nicknamed "The Red Priest".	
3	Vivaldi named one of his flute concertos in D	goldfinch [or gardellino]
	major for this type of small bird.	

Question #28: Fine Arts – Classical Music & Opera

This composer's musically talented family included		
his son Carl Philipp Emanuel.		
1	Name this 18th-century composer of a <i>Toccata and</i>	Johann Sebastian Bach
	Fugue in D minor and the Goldberg Variations.	
2	Bach often performed on this instrument. He	pipe <u>organ</u> or church <u>organ</u>
	designed the one for Divi Blasii [DIH-vee	
	BLAH-see] Church in Muhlhausen, which is still	
	used. The one in St. Thomas Church in Leipzig	
	[LYPE-tsig] is designed to look like the one he	
	used.	
3	This other composer's third symphony, completed	(Charles-)Camille
	in 1886, is nicknamed the "Organ Symphony"	Saint-Saens [kaa-meel
	because of the major role the organ plays in it.	san-sahnss]



Round 2 5th Section Toss-up Questions

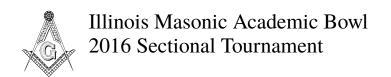
Question #29: Science – Physics

10 points

For a probability distribution, this quantity is equal to	entropy [prompt on S]
the sum of the product of each term's probability with	
the natural log of the probability. That form of this	
quantity is named for Claude Shannon. This quantity is	
the conjugate variable of temperature. It does not	
change in a reversible process. This quantity is	
proportional to the log of the number of microstates.	
Maxwell's demon could hypothetically decrease this	
quantity. The second law of thermodynamics states that	
this quantity cannot decrease in a closed system. Name	
this quantity that measures the disorder of a system.	

Question #30: Literature – World Literature

This author wrote of a gatekeeper who prevents a man	Franz <u>Kafka</u>
from going through a door in the story "Before the	
Law", which appears within this writer's novel that	
ends with a bank officer dying "like a dog". Max Brod	
chose to publish most of this author's manuscripts after	
this author's death. In one of this writer's novellas, the	
protagonist attempts to listen to his sister Greta	
[GREH-tuh] play the violin, after which his family	
abandons him. That protagonist is injured when his dad	
throws apples at him. Name this Czech author who	
wrote of Gregor Samsa's transformation into an insect	
in The Metamorphosis.	



Round 2 5th Section Toss-up Questions

Question #31: Mathematics – Math Concepts

10 points

A special case of Jensen's inequality states that one of these quantities is less than or equal to the other, and those quantities are only equal if a distribution just has one value. This quantity is the first raw moment of a distribution. The law of large numbers states that over many samples, this quantity converges to the expected value. The fact that extreme measurements are usually followed by less extreme measurements is referred to as the "regression to" this value. This measurement of central tendency is less robust than the mode and the median. Name this average of a set of numbers.

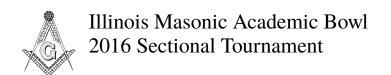
arithmetic **mean** [prompt on **expected value** or **average**]

Question #32: Social Studies – U.S. History

10 points

This president defeated a candidate whose nominating convention was nicknamed the "Klanbake". In his inaugural address, this president said the United States had reached "a state of contentment seldom before seen". Earlier, as governor, this man sent a telegram indicating that "there is no right to strike against the public safety" to Samuel Gompers during the Boston Police Strike. This person became president when his predecessor suffered a cerebral hemorrhage in 1923. Name this president who was nicknamed "Silent Cal".

(John) Calvin **Coolidge**(, Jr.)



Round 2 Extra Section Toss-up Questions

Extra Question #1: Science - Biology

10 points

One step in this pathway is catalyzed by the iron-sulfur protein aconitase [uh-KAH-nih-tayss]. In the first step of this pathway, oxaloacetate ["OX"-uh-loh-ASS-uh-tayt] reacts with a thioester ["THIGH"-oh-ES-tur] to form citrate ["SIT-rate"]. Each instance of this pathway yields one ATP, four NADH, and one FADH2, as well as three molecules of carbon dioxide. Acetyl-CoA [uh-SEE-tul koh-ay] is formed in this pathway by the activity of pyruvate dehydrogenase ["pie"-ROO-vayt dee-"high"-DRAH-juh-nayss], which uses the product of glycolysis [gly-KAH-luh-sis]. The products of this pathway are used to provide electrons for the electron transport chain. Name this "cycle" that occurs during aerobic respiration.

Krebs cycle [or citric acid cycle or tricarboxylic acid cycle or TCA cycle; prompt on aerobic cellular respiration before "aerobic"]

Extra Question #2: Fine Arts – Classical Music & Opera

10 points

William Kincaid played a platinum version of this	(transvers
instrument with open-hole keys. The pianist Francis	
Poulenc [poo-lenk] wrote a sonata for this instrument	
that he first performed with Jean [zhahn]-Pierre	
Rampal. Modern-day versions of this instrument use	
the Boehm [baym] system. Their lowest note is either	
middle C or the B one note lower. James Galway	
played this instrument, which is a woodwind but does	
not use a reed. Name this instrument, a larger and lower	
version of the piccolo, which creates sound when air is	
blown across an opening.	

(transverse) **flute**



Round 2 Extra Section Toss-up Questions

Extra Question #3: Mathematics – Math Concepts

10 points

Laplace's [luh-PLAH-suz] formula uses these object's adjugates, which are also known as their adjoints or adjuncts, and which are found by calculating their minors and then transposing. The Cayley-Hamilton theorem states that these objects satisfy their own characteristic equations, which are typically used to find their eigenvalues ["eye-gun-values"]. The trace of a square example of one of these objects is calculated by adding the entries on the main diagonal. Name these rectangular arrangements of numbers, square examples of which have a determinant.

matrix or matrices

Extra Question #4: Social Studies – World History

10 points

This group took on the "Armalite-and-ballot box strategy" following protests over prisoners not being granted Special Category Status. Members of this group planted a bomb that killed Lord Mountbatten. Its support swelled after Bobby Sands died in a hunger strike. This organization has undergone several splits, the first of which occurred after Michael Collins signed a treaty with Great Britain. Sinn Fein [shin fayn] is this group's political arm. Name this terrorist group whose ultimate goal is to unite all of Ireland.

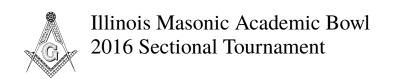
(Provisional) Irish
Republican Army [or IRA;
accept Sinn Fein before
"Lord Mountbatten" is
mentioned; do not accept it
after that]



Round 2 Extra Section Toss-up Questions

Extra Question #5: Literature – U.S. Literature

After attacking a man in a red sweater, this character is	<u>Buck</u>
taught the law of the club. Sold by the compulsive	
gambler Manuel, this character was spared from the	
fate that befell Hal, Charles, and Mercedes. He	
delivered on a wager by pulling a half-ton sled one	
hundred yards. He attacked a group of Yeehat natives	
that killed his master, John Thornton. This character	
defeats Spitz after being sent from California to the	
Klondike. Name this St. Bernard-Scotch Collie, the	
protagonist of Jack London's The Call of the Wild.	



Extra Question #6: Social Studies – U.S. History

10 points per part

The Civil Service Commission was initially set up to		
enforce the provisions of this act, meant to ensure		
competent people were hired for certain jobs.		
1	Name this 1883 civil service reform act that was	Pendleton (Civil Service
	meant to do away with the "spoils system" for jobs	Reform) Act
	with the federal government.	
2	The impetus for the Pendleton Act was the	James A(bram) Garfield
	assassination of this president, which took place	
	because Charles Guiteau [gee-toh] believed he	
	deserved an appointment as an ambassador.	
3	This state was the first to set up a similar system for	New York (State)
	state workers, but because its system did not apply	
	on the municipal level, it did little to curb the	
	influence of Tammany Hall.	

Extra Question #7: Social Studies – U.S. History

To e	enforce the 15th Amendment, this law banned	
literacy tests for voting.		
1	Name this act amended in 1975 to cover	Voting Rights Act of 1965
	language-based minorities. Some of its provisions	
	were weakened by the Shelby County v. Holder	
	decision in 2013.	
2	Shelby County, which was able to weaken the act,	<u>Alabama</u>
	is located in this state.	
3	The Voting Rights Act gave the Justice Department	24th Amendment to the
	the authority to investigate poll taxes; poll taxes	United States Constitution
	were made unconstitutional via this amendment.	



Extra Question #8: Science - Chemistry

10 points per part

This element was used in Madame Wu's experiments		element was used in Madame Wu's experiments	
to	to detect parity violation.		
	1	Name this element, found after iron on the periodic	<u>cobalt</u>
		table, whose symbol is Co [C-O].	
2	2	Alfred Werner studied these compounds that often	coordination complex es [or
		have cobalt centers. These compounds consist of	metal complex es or complex
		metal centers bound to multiple ligands	ions]
		[LIG-undz].	
í	3	Cobalt is found in the center of this B vitamin,	vitamin B 12 [or cobalamin
		which the body needs intrinsic factor to absorb.	or cyano <u>cobalamin</u>]

Extra Question #9: Science – Chemistry

tch of the spectrum at 1700 inverse centimeters	
racteristic of one of these structures.	
Name this functional group consisting of a carbon	carbonyl [KAR-buh-nil]
double-bonded to an oxygen. They are present in	group(s)
aldehydes [AL-duh-"hides"] and ketones	
["KEY-tones"].	
To test for the presence of an aldehyde, one can use	Tollens'(s) reagent [accept
this reagent, which forms a silver mirror in the	<u>Tollens</u> test]
presence of an aldehyde.	
Carbonyl ligands [LIG-undz] consist of this	carbon monoxide
diatomic molecule, which also has the formula CO.	
This molecule is a poisonous, odorless, colorless	
gas produced by incomplete combustion.	
	Name this functional group consisting of a carbon double-bonded to an oxygen. They are present in aldehydes [AL-duh-"hides"] and ketones "KEY-tones"]. To test for the presence of an aldehyde, one can use his reagent, which forms a silver mirror in the presence of an aldehyde. Carbonyl ligands [LIG-undz] consist of this diatomic molecule, which also has the formula CO. This molecule is a poisonous, odorless, colorless