



### Question #1: Literature

10 points

In Norse mythology, one of these things that was built out of fingernails and toenails of the dead is called *Naglfar* [NAG-ul-“far”], and Balder owns one called *Hringhorni* [“RING”-hor-nee]. In the *Epic of Gilgamesh*, *Utnapishtim* [oot-nuh-PISH-tim] built one of these things called *The Preserver of Life*. Horus and Seth were supposed to each build one of these objects out of stone, but Horus cheated and made his out of wood. Jason traveled on one of these objects, the *Argo*. Name this type of vehicle exemplified by Noah’s ark.

**boats** or **ships** [accept **ark** before it is mentioned]

### Question #2: Miscellaneous

10 points

This measure was first developed by Fair, Isaac, and Company in the 1980s. This measure may be lowered by “hard pulls” of a related report, but is unaffected by “soft pulls”. This measure is also affected by how long accounts have been open and by people’s debt ratios. This measure is always between 300 and 850 and is included on reports offered by TransUnion, Experian, and Equifax. Name this measure of how likely a person is to pay debts.

**credit score** [accept **FICO** credit score]



**Question #3: Science**

10 points

The formation and evolution of these things is a major subject of the Great Observatories Origins Deep Survey. The largest known structures of the universe are known as filaments of these things. In space, places where none of these things exist are called voids. The Hubble Sequence is a method of classifying these things using the symbols “E”, “S”, and “SB”. A quasar is an active one of these things in its early stages of formation. The one of these things that we live in is about 100,000 light-years across. Name these collections of stars such as the Andromeda and the Milky Way.

galaxy/ies

**Question #4: Social Studies**

10 points

This event took place one week after the USS *Indianapolis* was sunk after making a delivery to **Tinian** [TIN-ee-un]. Robert Lewis took notes during this event and reportedly screamed “Look at that!”. A famous description of this event was written by John Hersey. This event happened eleven days after the Potsdam Declaration threatened “prompt and utter destruction”. This act was carried out by Paul Tibbets, the pilot of the *Enola Gay*. Name this event that took place August 6, 1945 that was followed three days later by a similar event in Nagasaki.

bombing of Hiroshima  
[accept equivalents including first atomic bomb attack or first use of nuclear weapon or dropping of Little Boy; prompt on dropping an atomic bomb or bombing of Japan]



### Question #5: Literature

10 points

<p>When this person criticized copper coins minted by William Wood, he used the pseudonym “<b>Drapier</b>” [<b>DRAY-peer</b>]. An essay by this writer begins by complaining about “beggars of the female sex” and ends with the disclaimer “I have no children by which I can propose to get a single penny.” In a novel by this author, the protagonist is caught in a storm while on the <i>Antelope</i>, and soon after that wakes up tied to the ground and surrounded by little people. Name this satirist who wrote <i>A Modest Proposal</i> and described Lilliput in <i>Gulliver’s Travels</i>.</p>	<p>Jonathan <u>Swift</u></p>
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### Question #6: Science

10 points

<p>Beta oxidation gets its name because it affects the beta atom of this element in a fatty acid. Atoms of this element are double-bonded in <b>cumulene</b> [<b>KYOOM-yoo-leen</b>], and this element is double-bonded with oxygen in <b>ketones</b> [<b>“KEY-tones”</b>]. A molecule with one atom each of this element and oxygen binds to <b>hemoglobin</b> [<b>HEE-moh-gloh-bin</b>], preventing oxygen from reaching body tissue. An <b>autotroph</b> [<b>AW-toh-troh</b>] is an organism that does not need to take in this element in an organic form. Name this element that is central in methane molecules and is used throughout organic chemistry.</p>	<p><u>carbon</u></p>
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**Question #7: Social Studies**

10 points per part

Some practitioners of this religion call it <b>Sanatana Dharma</b> [sah-NAH-tah-nah DAR-mah] because they believe it to be eternal.		
<b>1</b>	Name this religion with about one billion practitioners, most of whom live in India. The Vedas and <b>Upanishads</b> [oo-PAH-nee-shahds] are scriptures of this religion.	<b>Hinduism</b> [or <b>Hindus</b> or <b>Hindu</b> people]
<b>2</b>	This holiday in Hinduism and other eastern religions is the festival of lights. On this holiday, Jains celebrate Mahavira achieving Nirvana.	<b>Diwali</b> [dih-WAH-lee] [or <b>Deepavali</b> or <b>Divali</b> ]
<b>3</b>	Hindus and Jains often use this term as an alternative to somebody achieving <i>nirvana</i> . This major goal of Hindus is the release from the rebirth cycle.	<b>moksha</b> [MOHK-shah] [or <b>vimoksha</b> or <b>vimukti</b> ]

**Question #8: Social Studies**

10 points per part

This apostle, who was originally named Simon, cried after denying Jesus three times.		
<b>1</b>	Name this person who, along with his brother Andrew, was made a “fisher of men”. Catholics consider him to be the first Pope.	(Simon) <b>Peter</b>
<b>2</b>	Peter was one of the three apostles who slept when Jesus went through the agony in this garden at the foot of the Mount of Olives.	Garden of <b>Gethsemane</b> [geth-SEH-mah-nee] [or <b>gat shmaneem</b> ]
<b>3</b>	In the Book of Acts, Peter heals a lame man. What two things does Peter say he does not have just before healing the man?	<b>silver</b> and <b>gold</b> [either order]



**Question #9: Mathematics**

*10 points per part*

In modular arithmetic, only this kind of quantity is considered.		
<b>1</b>	Name this type of quantity that is “left over” from the <b>quotient</b> [KWOH-shint] when dividing.	<b><u>remainder</u></b>
<b>2</b>	The remainder ends up in the lower right corner in this method for dividing polynomials more quickly than long division. No variables are written while performing polynomial division this way.	<b><u>synthetic</u></b> division
<b>3</b>	Find the remainder when $x$ to the fourth, plus $2x$ cubed, plus $5x$ squared, plus 3 [pause] is divided by $x$ minus 1.	<b><u>11</u></b>

**Question #10: Mathematics**

*10 points per part*

This diagram of numbers gives all the possible values of binomial combinations.		
<b>1</b>	Name this diagram that has diagonal lines of ones on both sides. In the interior, each number equals the sum of the two numbers above it.	<b><u>Pascal's triangle</u></b>
<b>2</b>	This fractal can be formed by shading in the odd numbers in an infinite version of Pascal's triangle.	<b><u>Sierpiński</u></b> (’s) [ser-PIN-skee] or <b><u>Sierpiński</u></b> (’s) gasket or <b><u>Sierpiński</u></b> (’s) sieve
<b>3</b>	One of the rows of Pascal's triangle begins 1, 6, 15. Find the next number in that row, which is in the middle of the row.	<b><u>20</u></b>



**Question #11: Literature**

10 points per part

This man introduced a character called “the Cisco [SIS-koh] Kid” in his story “The Caballero’s [KAH-by-YAIR-oh’z] Way”.		
<b>1</b>	Identify this author. Jim and Della give each other ironic presents of combs and a watch fob in another of his stories, “The Gift of the Magi”.	<b>O. Henry</b> or William Sidney <b>Porter</b>
<b>2</b>	In another story by O. Henry, Bill and Sam commit this crime to earn money from Ebenezer Dorset but end up losing 250 dollars instead. The victim of this crime called himself “Red Chief”.	<b>kidnapping</b> or child <b>abduction</b> [accept word forms; prompt on <b>ransom</b> or <b>extortion</b> or word forms]
<b>3</b>	In O. Henry’s “The Cop and the Anthem”, Soapy tries to get arrested through theft, vandalism, and soliciting prostitution, but is jailed for this crime instead.	<b>loitering</b> [accept word forms]

**Question #12: Literature**

10 points per part

One poem claims that “something there is that doesn’t love” one of these things.		
<b>1</b>	Name this type of object that is repaired in the spring by two neighbors, one of whom claims that “Good fences make good neighbors”, in a poem titled for “Mending” one of these things.	<b>walls</b>
<b>2</b>	This American poet published “Mending Wall” in his collection <i>North of Boston</i> . His other collection <i>Mountain Interval</i> contains “The Road Not Taken”.	Robert (Lee) <b>Frost</b>
<b>3</b>	In this other poem from <i>Mountain Interval</i> , a boy dies after a buzz-saw accident when his sister calls him to supper.	<b>“Out, Out—”</b>



### Question #13: Science

*10 points per part*

The elevation of this quantity is a <b>colligative</b> [kuh-LIG-uh-tiv] property.		
<b>1</b>	Name this temperature at which a liquid turns into a vapor.	<b><u>boiling point</u></b>
<b>2</b>	Formulas for boiling-point elevation often use this measure of concentration, equal to amount of solute divided by the mass of the solvent.	<b><u>molality</u></b> [do not accept or prompt on “molarity”]
<b>3</b>	Boiling-point elevation can be explained using this law stating that effective partial pressures are proportional to the mole fraction of a component. This law is combined with Dalton’s law of partial pressures to find total vapor pressure.	<b><u>Raoult’s</u></b> law

### Question #14: Science

*10 points per part*

This device is named for a fictitious force.		
<b>1</b>	Name this device that separates mixtures by spinning rapidly.	<b><u>centrifuge</u></b> [SEN-trih-fyooj]
<b>2</b>	Gas centrifuges are commonly used to separate the 235 and 238 isotopes of this element, which is why arms treaties sometimes control the number of centrifuges.	<b><u>uranium</u></b>
<b>3</b>	This Swedish Nobelist developed the ultracentrifuge, which is exactly what it sounds like. A very short unit of time named for him is used to measure sedimentation rates and to classify <b>ribosomes</b> [RY-boh-sohmz].	Theodor <b><u>Svedberg</u></b>



**Question #15: Social Studies**

*10 points*

<p>This person replaced Daniel Patrick Moynihan in the U.S. Senate by defeating Rick Lazio [LAH-zee-oh]. Before that, when this person's Task Force on National Health Care Reform was unsuccessful, this person worked with Congress to pass the State Children's Health Insurance Program. This person pushed for a NATO-led military intervention in Libya while serving as Secretary of State. Name this former First Lady of Arkansas and the U.S., who lost the Democratic presidential nomination to Barack Obama in 2008 and also lost the 2016 general election.</p>	<p>Hillary <u>Rodham Clinton</u> [accept either underlined name]</p>
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**Question #16: Mathematics**

*10 points*

<p>Conformal and anti-conformal mappings preserve measures of these mathematical constructs; inversion is an example of an anti-conformal mapping. If one of these things in a polygon is of the reflex type, the polygon is concave. One of the geometric problems of antiquity was trisecting this kind of thing. Adding up the measures of the exterior types of these things in a polygon always gives the same sum. One unit for these things is defined as subtending a length of 1 on the unit circle, and is called the radian. Name these figures created by two rays with a common endpoint, some of which can be classified as acute or obtuse.</p>	<p><u>angles</u></p>
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**Question #17: Fine Arts**

10 points

<p>A solo on this instrument opens Claude Debussy's [deh-BYOO-seez] <i>Prelude to the Afternoon of a Faun</i>. This is the only instrument in Debussy's <i>Syrinx</i>. The bansuri [bahn-SUR-ee] is a traditional Indian instrument of this type. Jasmine Choi, Jean-Pierre Rampal, and James Galway are famous performers on this instrument. A magic one of these instruments is given to Tamino [tah-MEE-noh], as mentioned in the title of a Mozart opera. Name this reedless wind instrument that is usually held about parallel to the floor.</p>	<p><u>flute(s)</u></p>
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**Question #18: Literature**

10 points

<p>In this town, there is a tree commemorating the capture of Major Andre by three yeomen [YOH-men]. In this town, old Brouwer is thrown into a brook by a skeleton figure. This town's schoolteacher is obsessed with Cotton Mather's book on the history of witchcraft in New England. That teacher is attacked while riding his horse, Gunpowder, after leaving a "quilting frolic" at the farm of the girl he is wooing. This town's prankster Brom Bones wins the hand of Katrina van Tassel after the disappearance of Ichabod [IK-uh-bahd] Crane. Name this town haunted by the Headless Horseman in a "Legend" written by Washington Irving.</p>	<p><u>Sleepy Hollow</u></p>
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**Question #19: Social Studies**

10 points

<p>Harlan Stone wrote that this amendment “states but a truism” in the <i>United States v. Darby Lumber</i> decision. Lawyers for Aaron Ogden unsuccessfully cited this amendment in an 1824 Supreme Court case against Thomas Gibbons. The 2011 Supreme Court case <i>Bond v. United States</i> upheld the last phrase of this Constitutional Amendment, which is “to the people.” This amendment has historically been cited by supporters of states’ rights because it addresses “the powers not delegated to the United States by the Constitution”. Name this last amendment in the Bill of Rights.</p>	<p><u>10</u>th Amendment</p>
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**Question #20: Science**

10 points

<p>Slightly less than 10% of the objects in cosmic rays are these particles. The emission of these particles is used in ionization smoke detectors. The first artificial nuclear transmutation used these particles to turn nitrogen into oxygen, releasing a proton. Hans Geiger [“GUY”-gur] and Ernest Marsden used these particles to discover atomic nuclei in an experiment overseen by Ernest Rutherford in which these particles collided with gold foil. Name these particles that are equivalent to helium nuclei since they comprise two protons and two neutrons.</p>	<p><u>alpha</u> particles or <u>alpha</u> radiation [accept <u>helium nuclei</u> or <u>helium nucleus</u> before it is mentioned; do not accept or prompt on “helium”]</p>
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**Question #21: Mathematics**

*10 points per part*

This property of a function's graph can be found by substituting $x$ equals 0 into the function's formula, assuming you have the formula.		
<b>1</b>	Name this quantity that is represented by the $b$ when a line's equation is in the form " $y$ equals $mx$ plus $b$ ".	<b><u>y-intercept</u></b> [prompt on <b><u>intercept</u></b> ]
<b>2</b>	Find the $y$ -intercept of the graph of the equation $5x$ plus $2y$ equals 20.	$y = \underline{10}$ or <b><u>(0, 10)</u></b>
<b>3</b>	Rather than finding the $y$ -intercept, find the $x$ -intercept of the graph of the equation $y$ equals $x$ squared plus $8x$ plus 16.	$x = \underline{-4}$ or <b><u>(-4, 0)</u></b>

**Question #22: Mathematics**

*10 points per part*

The graph of this function is half of a parabola that opens rightward.		
<b>1</b>	Name this function that is equivalent to raising a number to the one-half power.	square <b><u>root</u></b> [accept <b><u>radical</u></b> ; accept answers that additionally mention a variable]
<b>2</b>	Put the square root of 75 in simplified radical form.	<b><u>5</u></b> times the square <b><u>root</u></b> of <b><u>3</u></b> [accept <b><u>5</u></b> times <b><u>radical 3</u></b> ]
<b>3</b>	Put 20 divided by root 2 in simplified radical form.	<b><u>10</u></b> times the square <b><u>root</u></b> of <b><u>2</u></b> [accept <b><u>10</u></b> times <b><u>radical 2</u></b> ]



**Question #23: Social Studies**

*10 points per part*

The Del Peral and De Salas inquiry and the Sampson Board's Court of Inquiry reached different conclusions about this ship's explosion.		
<b>1</b>	Name this ship that exploded in Havana Harbor in 1898.	USS <u><i>Maine</i></u>
<b>2</b>	The explosion of the <i>Maine</i> led to this war fought in the Caribbean Sea and Pacific Ocean.	<u>Spanish-American</u> War
<b>3</b>	During the Spanish-American War, Henry Glass captured this island without a fight.	<u>Guam</u>

**Question #24: Social Studies**

*10 points per part*

He was the only person to serve both as Secretary of Commerce and U.S. President.		
<b>1</b>	Name this president who served during the Wall Street Crash of 1929, which started the Great Depression.	Herbert <u>Hoover</u>
<b>2</b>	Hoover signed this 1930 protectionist tariff that reduced trade.	<u>Hawley-Smoot</u> Tariff Act or <u>Smoot-Hawley</u> Tariff Act
<b>3</b>	Hoover supported the creation of this agency in 1932 that gave aid to railroads, banks, and corporations. This agency was more active under Franklin Roosevelt and was disbanded under Dwight Eisenhower.	<u>Reconstruction Finance Corporation</u> or <u>RFC</u>



**Question #25: Fine Arts**

*10 points per part*

The top of this painting shows an advertisement for five-cent Phillies cigars.		
<b>1</b>	Name this painting that shows a man in white working at a diner counter with three people sitting around it.	<u><i>Nighthawks</i></u>
<b>2</b>	This artist painted <i>Nighthawks</i> .	Edward <u>Hopper</u>
<b>3</b>	This artist made an alternative version of <i>Nighthawks</i> in which the diner has a broken window, and there is a man outside the diner with British flag underpants.	<u>Banksy</u>

**Question #26: Fine Arts**

*10 points per part*

This house was pictured on the cover of <i>Time</i> magazine in January 1938.		
<b>1</b>	Name this house in southwestern Pennsylvania. Edgar Kaufmann commissioned it.	<u>Fallingwater</u>
<b>2</b>	This Prairie-school architect designed Fallingwater. He started his career in Oak Park, Illinois, where he designed the Unity Temple.	Frank Lloyd <u>Wright</u> [or Frank Lincoln <u>Wright</u> ]
<b>3</b>	Frank Lloyd Wright designed this house for Herbert F. Johnson on Wind Point peninsula near <b>Racine</b> [ruh-SEEN], Wisconsin. This building is now a conference center.	<u>Wingspread</u>



**Question #27: Literature**

*10 points per part*

With reference to colonialism, this novella states “All Europe contributed to the making of Kurtz.”		
<b>1</b>	Name this story in which Kurtz is an ivory trader who horribly mistreats Africans.	<b><i>Heart of Darkness</i></b>
<b>2</b>	This author of <i>The Secret Sharer</i> wrote <i>Heart of Darkness</i> .	Joseph <b>Conrad</b> [or Józef Teodor Konrad <b>Korzeniowski</b> ]
<b>3</b>	Kurtz is supported by a trader of this nationality. The trader of this nationality says “I heard he was lying helpless, and so I came up—took my chance.”	<b>Russian</b>

**Question #28: Literature**

*10 points per part*

In this novel, an actress named Sibyl kills herself, leading her brother James to seek vengeance against someone whom she called “Prince Charming”.		
<b>1</b>	Name this novel in which a portrait ages rather than a person.	<b><i>The Picture of Dorian Gray</i></b>
<b>2</b>	<i>The Picture of Dorian Gray</i> is the only novel by this author, who primarily wrote plays.	Oscar (Fingal O’Flahertie Wills) <b>Wilde</b>
<b>3</b>	This character painted the portrait that ages instead of Dorian.	<b>Basil Hallward</b> [accept either]



**Question #29: Science**

*10 points*

Some of these devices use erbium-doped **yttrium [IT-tree-um]** aluminum garnet to create an output that is easily absorbed by water. That substance is used as a gain medium in an optical cavity in one of these objects that uses pumping to create population inversion. The output of this device is of a single frequency and phase, which makes it coherent. The most common type of this device uses helium and neon to produce a red output. Name this kind of device that uses stimulated emission to create a beam of light.

laser

**Question #30: Social Studies**

*10 points*

Near the end of this leader's reign, Robert **Devereux [dev-uh-roh]** was beheaded after the failure of Essex's Rebellion. Before gaining power, this leader was accused of supporting Wyatt's rebellion and imprisoned. When this person gained power, Parliament passed the Acts of Uniformity and Supremacy to strengthen the Church of England. Those laws were reactions against this leader's predecessor and half-sister, Bloody Mary. This queen ruled England for 44 years and ended the Tudor dynasty by not having a child. Name this queen who ruled during the time of William Shakespeare.

Elizabeth I [or  
Elizabeth Tudor;  
prompt on Elizabeth]



### Question #31: Mathematics

10 points

This sequence is complete even if one of its elements is deleted, but not if two are deleted. These numbers generate a tiling in which squares are added repeatedly to form larger rectangles. The spiral named for these numbers can either be an approximation of the golden spiral or the actual golden spiral. Ratios of these numbers get successively closer to the golden ratio. Name these numbers generated by starting with 1 and 1, then generating each number by adding the prior two numbers, thus producing the sequence 1, 1, 2, 3, 5, 8, 13, and so on.

**Fibonacci**  
[fib-oh-NAH-chee] numbers  
or **Fibonacci** sequence

### Question #32: Literature

10 points

One character in this novel is offended when he is given a lady's handkerchief that he had been standing on. The central character of this novel pursues a "man from Meung" who turns out to be the **Comte de Rochefort** [kawmt duh rohsh-for]. After noticing a **fleur-de-lis** [floor duh lee] branded on her shoulder, that central character escapes from **Milady** [mih-lay-dee] de Winter, and he avoids a sequence of three duels when he and his combatants are attacked by the guards of Cardinal **Richelieu** [reesh-el-yoo]. Name this Alexander **Dumas** [doo-mah] novel in which **d'Artagnan** [dar-tan-yahn] joins the swordsmen Athos, Porthos, and Aramis, who repeat "All for one and one for all".

*The **Three Musketeers***  
[or *Les **Trois***  
***Mousquetaires***]



### Extra Question #1: Fine Arts

10 points

These people are depicted leading 22 virgins in a mosaic in the Basilica of **Sant'Apollinare Nuovo** [sahnt ah-poh-lee-NAR-ay noo-OH-voh] in Ravenna, Italy. These people are also the subject of a *tondo* credited to both Fra Angelico and Filippo Lippi. Sandro **Botticelli** [boh-tee-CHEL-lee] depicted deceased members of the **Medici** [MEH-dee-chee] family as these people. While early depictions of these people make them look Persian, in other depictions Caspar looks Asian, **Melchior** [MEL-kee-or] looks European, and Balthasar looks African. Name these three biblical characters often depicted at the feet of Baby Jesus bearing presents.

the (three) **Magi** [prompt on **Kings**; accept **Caspar**, **Melchior**, and **Balthasar** in any order before “Caspar”]

### Extra Question #2: Science

10 points

The **chorda tympani** [KOR-duh tim-PAN-ee] nerve carries signals from this organ to the brain. A condition known as **ankyloglossia** [ayn-kih-lho-GLAW-see-uh] can limit the **genioglossus** [JEE-nee-oh-GLAW-suss] muscle, which in turn limits this organ's movement. Blood is supplied to this organ by a branch of the carotid artery called the lingual artery. **Papillae** [puh-PILL-ee] cover this organ, giving it a rough appearance. Muscles in this organ facilitate speech and swallowing. Name this organ that is covered in taste buds.

**tongue**



### Extra Question #3: Mathematics

*10 points*

The Klein group with this many elements is the smallest non-cyclic group. This is the highest degree for which all polynomials can be solved exactly in terms of radicals, according to the **Abel-Ruffini [AH-bul roo-FEE-nee]** theorem. The Platonic solid with the fewest vertices and faces has this many vertices and faces, and is called the tetrahedron. Two intersecting lines divide the plane into this many different regions. Give this number that is the smallest positive even square, and the smallest composite number.

four

### Extra Question #4: Social Studies

*10 points*

This island was the home of the extinct tiger-striped **thylacine [“THIGH”-luh-seen]**. A sequence of rounded columns called the Organ Pipes are on this island’s Mount Wellington, which overlooks the mouth of the River Derwent. This island’s northwest corner, Cape Grim, is the site of an 1828 clash between natives and the Van **Diemen [DEE-mun]** Land Company. A facial tumor disease is affecting a species of carnivorous rodents endemic to this island. The Bass Strait separates this island from Melbourne. Name this Australian state whose capital is Hobart and which is home to a namesake species of rodents called “devils”.

Tasmania



**Extra Question #5: Literature**

*10 points*

In this novel, cigarettes are packaged in plain boxes with a gold dollar symbol. In this novel, Orren Boyle suggests the “anti-dog-eat-dog” rule to cripple the Phoenix-Durango Line. A burning oil well in this novel is named Wyatt Torch, and an Argentine copper billionaire Francisco **d’Anconia** [**dan-KOH-nee-ah**] delivers a “money speech”. In this novel, a stronger, lighter alternative to steel is developed by Hank Rearden, who joins the mysterious John Galt in a strike against the “moochers” and “looters”. Name this novel about the railroad baroness Dagny Taggart, written by Ayn Rand.

*Atlas Shrugged*



**Extra Question #6: Literature**

10 points per part

After studying law, medicine, and philosophy, this character explains “I stand no wiser than before.”		
<b>1</b>	Name this scholar who makes a deal with <b>Mephistopheles</b> [meh-fiss-TAH-fuh-leez] in a two-part tragic play by Johann Wolfgang von <b>Goethe</b> [GUR-tuh].	Dr. <b><u>Heinrich Faust</u></b> [accept either underlined name; do not accept “Doctor Faustus” or “Johann Georg Faust”]
<b>2</b>	After Faust’s deal with Mephistopheles, he seduces this woman. After she drowns her child, a voice from Heaven proclaimed that she is saved.	<b><u>Margarete</u></b> or <b><u>Gretchen</u></b>
<b>3</b>	The composer Adrian Leverkühn appears in this author’s novelization of the Faust story.	(Paul) Thomas <b><u>Mann</u></b>

**Extra Question #7: Literature**

10 points per part

This novel’s title character has the son <b>Reizei</b> [ray-zay] with his father’s concubine, Lady Fujitsuno.		
<b>1</b>	Name this 11th-century novel about the son of Emperor Kiritsubo. The title character is a prince who pursues affairs while married to Lady <b>Aoi</b> [“ow”-ee].	<i>The <b><u>Tale of Genji</u></b></i>
<b>2</b>	This <b>Heian</b> [HAY-un]-period Japanese noblewoman wrote <i>The Tale of Genji</i> .	Lady <b><u>Murasaki</u></b> ( <b><u>Shikibu</u></b> ) [accept either underlined name]
<b>3</b>	Genji’s mother died when he was of this age. In Günter Grass’s <i>The Tin Drum</i> , Oskar Matzerath decides to stop growing when he is of this age.	<b><u>three</u></b> years old



**Extra Question #8: Science**

*10 points per part*

Robert FitzRoy named a mountain near the Beagle Channel after this person, and there are also frogs and finches named after this person.		
<b>1</b>	Name this author of <i>On the Origin of Species</i> .	Charles (Robert) <u>Darwin</u>
<b>2</b>	Darwin applied his ideas to humans in this 1871 book.	<i>The <u>Descent of Man</u>, and Selection in Relation to Sex</i>
<b>3</b>	This cousin of Darwin influenced and interpreted Darwin's thinking. Primarily famous as a statistician, this author of <i>Hereditary Genius</i> coined the term "eugenics" [yoo-JEN-iks].	Francis <u>Galton</u>

**Extra Question #9: Science**

*10 points per part*

This joint is just above the top of the <b>fibula</b> [FIB-yoo-luh].		
<b>1</b>	Name this hinge joint between the <b>femur</b> [FEE-mur] and <b>tibia</b> [TIB-ee-uh].	<u>knee</u>
<b>2</b>	This bone protecting the knee is commonly called the kneecap.	<u>patella</u> [puh-TEL-uh]
<b>3</b>	This is the name of the tendon connecting the top of the patella to the <b>femoris</b> [FEH-muh-rus] muscles at the front of the thigh.	<u>quadriceps</u> (extensor)