

Backup Packet

First Half

(1) **In the *Iliad*, Apollo anoints Sarpedon with this substance, and in the *Odyssey*, Athena washes Penelope with this substance to enhance her beauty. Consuming this substance replaced one's blood with ichor, and it was offered to Heracles when he (*) ascended Mount Olympus, where this substance is served by Hebe and Ganymede. For ten points, name this mysterious mythical substance which, with nectar, is the food of the gods.**

ANSWER: ambrosia (do not accept "nectar")

(1) Magdalena de la Cruz claimed to have a set of these things, which upon her deathbed she stated were fake. For ten points each,

Name these marks or pains found in locations where Jesus was wounded during the crucifixion.

ANSWER: stigmata

This was the first man with recorded stigmata, which he allegedly obtained after seeing a six-winged Seraph. The papal name of the current pope is in honor of this man.

ANSWER: Saint Francis of Assisi

This is the common name given to the Second Order of St. Francis, who take their name from a woman who was one of the first followers of Saint Francis. They were originally called the Order of the Poor Ladies.

ANSWER: Poor Clares

(2) **Goldbach's conjecture suggests that the sum of exactly this many primes can be used to express every even integer greater than this number. Mersenne primes are of the form "one less than a power of this number." Twin (*) primes are groups of prime numbers separated by this value, which is the first value used in the Sieve of Eratosthenes to eliminate composite numbers from the list of integers. For ten points, name this only even prime number.**

ANSWER: two

(2) Answer the following about statistics for ten points each.

This is the numerical average of a set of data, found by summing the data values and dividing by the number of values summed. It can be used along with the median and mode to describe the center of the set.

ANSWER: arithmetic mean (do not accept or prompt other types of mean)

The graph of the Gaussian normal distribution is most often described as this shape. It is symmetric and is tallest in the middle.

ANSWER: bell curve

This is the name for a data point that is abnormally far from the rest. These points can have a large effect on the mean, but a smaller effect on the median.

ANSWER: outliers

(3) **During this decade, Gary Hart was photographed on the yacht *Monkey Business*. At the end of this decade, the Keating Five were implicated in a scandal during the savings and loan crisis. Oliver North was convicted in another scandal during this decade, which began after America attempted to free (*) hostages in Lebanon by selling arms to Nicaraguan insurgents. The Iran-Contra affair occurred in, for ten points, what decade that contained Ronald Reagan's presidency?**

ANSWER: the 1980s (prompt on "the Eighties")

(3) This Conservative Prime Minister feuded with the Liberal William Gladstone. For ten points each, Name this only Jewish Prime Minister of England.

ANSWER: Benjamin Disraeli

Disraeli had a warm relationship with this 19th century Queen of England.

ANSWER: Queen Victoria

Disraeli worked to pass the 1867 Reform Act, which granted this right to all men who owned homes. Suffragette Emmeline Pankhurst worked to grant British women this right, which American women earned with the 19th Amendment.

ANSWER: right to vote

(4) **Paintings of this location feature the clown Cha-U-Kao [chah-oo-KOW] and La Goulue [lah goh-LOO], a red-haired dancer who appears in Henri de Toulouse-Lautrec's posters for this place. This club is the subject of a Baz Luhrmann musical film, in which Satine falls for Christian and (*) can-can dancers perform to songs like "Lady Marmalade."** For ten points, name this Parisian cabaret theater named for the red windmill on the roof.

ANSWER: Moulin Rouge

(4) For ten points each, answer the following about the “Big Five” American symphony orchestras.

The list includes this Massachusetts city’s Symphony Orchestra, but not its Pops Orchestra, famous for its Fourth of July celebrations.

ANSWER: Boston

After World War II, George Szell built this Ohio city’s orchestra into a highly precise ensemble.

ANSWER: Cleveland

The traditional Big Five is rounded out by groups based in Chicago, New York, and Philadelphia; this West Coast orchestra, directed by Gustavo Dudamel and formerly conducted by Esa-Pekka Salonen, is commonly considered worthy of inclusion in the list.

ANSWER: Los Angeles Philharmonic (prompt on LA or Los Angeles alone)

(5) **One of these wars began when the *Arrow* was seized on suspicion of being a pirate ship. The first of these wars, began after a letter to Queen Victoria was written by Lin Zexu, who destroyed nearly 3 million pounds of a medicinal (*) drug. The Unequal Treaties of Tianjin and Nanking ended two of these wars. For ten points, name this series of wars between China and England that were concerned with the smuggling of a certain narcotic drug.**

ANSWER: Opium War(s) (prompt on “wars between China and England” before those names are said)

(5) In February 1861, Abraham Lincoln arrived in Washington, D.C., having secretly passed through this city. For ten points each,

Name this largest city of Maryland.

ANSWER: Baltimore

This founder of a namesake national detective agency was convinced of a plot to assassinate Lincoln in Baltimore and encouraged Lincoln to forgo a planned public appearance.

ANSWER: Allan Pinkerton

This federal agency was established in 1865 to fight counterfeiters; indeed, the law establishing it was ready for Lincoln’s approval when he was killed. In 1902, this agency accepted the responsibility of protecting the President.

ANSWER: U.S. Secret Service

(6) **This author compared killing a child to destroying a manuscript in one work. One of this author’s protagonists takes out a loan to finance a recuperative trip to Italy, but forges her father’s signature on the deed. This author wrote a play in which Krogstad’s knowledge of a crime is used as blackmail against (*) Torvald, whose insensitivity and ignorance causes his wife, Nora Helmer, to leave him. For ten points, name this author of *Hedda Gabler* and *A Doll’s House*, the foremost Norwegian playwright.**

ANSWER: Henrik Ibsen

(6) This author noted “Tis better to have loved and lost/Than never to have loved at all” in a poem honoring his late friend, Arthur Hallam. For ten points each,

Name this British poet of *In Memoriam*, *A.H.H.* and the Arthurian cycle *Idylls of the King*.

ANSWER: Alfred, Lord Tennyson

Tennyson served in this position under Queen Victoria. In this role, he was employed to write poetry for important British occasions.

ANSWER: Poet Laureate of the United Kingdom (or of England, Great Britain, Ireland, etc.; prompt on “court poet”)

Collections of Tennyson’s poetry traditionally end with this poem, which notes “I hope to see my Pilot face to face.”

ANSWER: Crossing the Bar

(7) **These cells are damaged in multiple sclerosis because oligodendrocytes are destroyed. The myelin sheath allows for rapid salutatory conduction of an action potential between the nodes of Ranvier down the axon of this cell. It uses voltage-dependent ion channels and the sodium-potassium pump to maintain an electrical gradient across its cell membrane. Connections called (*) synapses join the cell body of one of these cells to the dendrites of another.** For ten points, name these cells that conduct nerve impulses.

ANSWER: neurons (or nerve cells before mentioned)

(7) Simple harmonic oscillators travel back and forth continuously in a frictionless system. For ten points each,

This is the distance that the oscillations travel, back and forth, from the equilibrium position. In a sinusoidal equation for a wave, this quantity is the coefficient on the sine function and is usually symbolized A.

ANSWER: amplitude

This is the number of cycles that pass a certain point each second. This quantity is measured in Hertz.

ANSWER: frequency

The inverse of frequency is this value, the time it takes for the wave to complete a full cycle.

ANSWER: period

Sixty Second Rounds

The categories are ...

1. Science Fiction
2. Henry Clay
3. The Moon
4. Musical Notation

SCIENCE FICTION

Which science fiction author wrote...

(1) *Ender's Shadow* and *Ender's Game*?

ANSWER: Orson Scott **Card**

(2) *Foundation*, and described three laws of robotics?

ANSWER: Isaac **Asimov**

(3) *The Hitchhiker's Guide to the Galaxy*?

ANSWER: Douglas **Adams**

(4) *American Gods* and *Coraline*?

ANSWER: Neil **Gaiman**

(5) "The Call of Cthulhu" [c'thoo-loo]?

ANSWER: H. P. **Lovecraft**

(6) the *Dune* series?

ANSWER: Frank **Herbert**

HENRY CLAY

Name the...

(1) State he represented as Senator, whose capital is Frankfort.

ANSWER: **Kentucky**

(2) Last political party he supported, which nominated Zachary Taylor and Millard Fillmore as a Presidential ticket in 1848.

ANSWER: **Whig** Party

(3) Congressional position he held in 1826, which is currently held by Paul Ryan.

ANSWER: **Speaker** of the House

(4) Nickname was he given due to his negotiation skills.

ANSWER: **Great Compromiser**

(5) "System" he championed that called for infrastructure improvements, a national bank, and tariffs.

ANSWER: **American** System

(6) Election year in which a "Corrupt Bargain" made James Madison president and Clay Secretary of State.

ANSWER: (Election of) **1824** (prompt on '24)

THE MOON

Which term describes...

(1) the Moon when its lit portion is growing, contrasted with a waning moon?

ANSWER: **waxing**

(2) a second full moon within the same calendar month?

ANSWER: **blue** moon

(3) the cyclical marine phenomenon caused by the Moon's gravitational pull, which is called "neap" at its lowest?

ANSWER: **tides**

(4) the only phase of the Moon during which a *solar* eclipse can occur?

ANSWER: **New** moon

(5) the Moon when its lit portion is larger than a semicircle, contrasted with a crescent moon?

ANSWER: **gibbous** moon

(6) a straight-line configuration of any three celestial bodies, like the Earth, Sun, and Moon, which often causes eclipses?

ANSWER: **syzygy**

MUSICAL NOTATION

Give the term – possibly from Italian, possibly from English – for each of the following musical notations.

(1) The dynamic marking abbreviated “f,” for loud.

ANSWER: **forte**

(2) Direction indicated “tr” [t r], in which the given note is quickly alternated with the next higher note.

ANSWER: **trill** (accept **mordent**)

(3) A shortened, but not accented, note, indicated by a dot above or below the note.

ANSWER: **staccato**

(4) A hold on a note or rest that is sustained as the conductor wishes, shaped like a bird’s eye.

ANSWER: **fermata**

(5) General term for any flat, sharp, or natural sign not indicated by a key signature.

ANSWER: **accidental**

(6) Direction given by a wavy line from one note up or down to another.

ANSWER: **glissando** or **portamento**

Second Half

(8) **One character in this film gets a jingle for TripleDent gum stuck in her head. Another character in this movie thinks a sign reading “DANGER” says shortcut, causing him to miss the Train of Thought. The imaginary friend Bing Bong is left in a dump after (*)** Honesty Island collapses in this movie, and after moving to San Francisco, Riley’s core memories are lost. For ten points, name this 2015 Pixar film whose characters include the emotions Sadness and Joy.

ANSWER: Inside Out

(8) Late in a 2015 playoff game, Kevin Harlan called “Here comes...[this player]!” just before he tripped around Corey Brewer and lost the ball out of bounds. For ten points each,

Name this backup point guard who is pressed into service when Chris Paul is injured. Critics of this player maintain he only remains in the league because his father is his head coach.

ANSWER: Austin Rivers

Doc Rivers is the head coach of this NBA team, which shares the Staples Center with the Lakers.

ANSWER: Los Angeles Clippers (accept city or team name; accept LA)

This Clipper power forward broke his hand in 2015 by punching an equipment manager and is expected to opt out of his contract after next season.

ANSWER: Blake Griffin

(9) **This poem sparked an angry reaction from the author’s indecisive friend Edward Thomas. The speaker of this poem “shall be telling this with a sigh/somewhere ages and ages hence,” and ends by noting that his choice “has made all the (*)** difference.” The subject of this poem “lay/in leaves no step had trodden black” and is described as “wanting wear” in a “yellow wood.” For ten points, name this poem about two diverging roads, written by Robert Frost.

ANSWER: The Road Not Taken

(9) This man refuses to step on a crucifix in Japan, and is put on trial for urinating on buildings in a land at war with Blefuscu. For ten points each,

Name this man, who found himself in a land of six-inch-tall people in a book of his “Travels” written by Jonathan Swift.

ANSWER: Lemuel Gulliver

Gulliver urinated on the tiny buildings of this island nation to put out a fire. This nation’s people are divided religiously between the Big-Endians and Little-Endians, who don’t agree on how to break an egg.

ANSWER: Lilliput

After traveling to Lilliput, Gulliver finds himself in this nation, populated by giants, where Gulliver is kept as a pet in a “travelling box.”

ANSWER: Brobdingnag

(10) **This empire agreed to the Concordat of Worms with Pope Calixtus II, ending the Investiture Controversy. Francis II dissolved this empire after losing to Napoleon at the Battle of Austerlitz. Scholars debate whether this empire began with Otto I in 962 or (*) Charlemagne in 800. For ten points, name this collection of Germanic states that, as Voltaire satirically noted, didn't live up to any of the three words in its name.**

ANSWER: Holy Roman Empire (or HRE)

(10) A quadriga was one of these vehicles powered by four horses, usually used for racing more than for war. For ten points each,

Name these horse-drawn vehicles. Archers commonly rode in these light vehicles.

ANSWER: chariot

This 1274 BC battle, won by Ramses the Great, is considered the largest chariot battle in history.

ANSWER: Battle of Kadesh

Ramses's Egyptian forces defeated Muwatalli II, the leader of this empire, at Kadesh. This empire's capital is in what is now central Turkey.

ANSWER: Hittite Empire

(11) **The recessional and lateral types of these features meet at right angles. The terminal type forms at the snout end as plucked material is no longer moved along. The North Sea's Dogger Bank is a sandbar believed to have been one of these features formed during the (*) Ice Age. A drumlin is a hill formed from one of these land structures. For ten points, give this term for an accumulated pile of grainy debris, called till, deposited by a moving glacier.**

ANSWER: moraine

(11) Cells need to regulate what flows into and out of them. For ten points each,

A phospholipid bilayer makes up this selectively-permeable barrier around cells.

ANSWER: cell membrane

This lipid keeps the cell membrane from melting and freezing, but it can build up on artery walls.

ANSWER: cholesterol

Because water is polar, it must enter the cell through these channel proteins in the cell membrane.

ANSWER: aquaporins

(12) **This author used her aunt as the model for the Methodist preacher Dinah Morris. In one work by this author, a lost pile of gold is found with the skeleton of Dunstan Cass. The title character of that novel adopts Eppie and is a “weaver from Raveloe.” In another work by this author, Edward (*) Casaubon changes his will in an attempt to prevent his younger brother Will Ladislaw from marrying Dorothea Brooke. For ten points, name this English novelist of *Adam Bede*, *Silas Marner*, and *Middlemarch*.**

ANSWER: George Eliot (or Mary Ann Evans)

(12) This girl experienced an epiphany at a water well, where her teacher pressed finger symbols into her hand spelling the word “water.” For ten points each,

Name this deaf and blind girl who was taught language with the help of Anne Sullivan.

ANSWER: Helen Keller

The story of Helen Keller is told in this 1959 play by William Gibson, whose title character is Anne Sullivan.

ANSWER: The Miracle Worker

Helen Keller suffered from blindness and deafness due to a bout of this disease as a young child. Mary in the *Little House on the Prairie* series also lost her eyesight to his disease.

ANSWER: scarlet fever

(13) **Two answers required. The strained Cross-Strait Relations exist between these two nations. One of these nations was once named Formosa, while the other was known to traders as Cathay. Each of these nations (*) claim all of the other nation, and do not formally recognize the other as an independent country. For ten points, name these two Asian countries whose governments are the legacies of Mao Zedong’s Communists and Chiang Kaishek’s Nationalists.**

ANSWER: Taiwan (or the Republic of China) and People’s Republic of China

(13) A “Dear Colleague” letter discussing restrictions on these places was sent out by the Department of Education in May 2016. For ten points each,

Name these public places, a subject of recent debate over transgender access rights, as they are commonly restricted to male or female only.

ANSWER: bathrooms

This state’s controversial HB2, passed in 2016, requires government buildings to restrict bathroom access based on the sex listed on one’s birth certificate. Its governor, Pat McCrory, has defended the bill, even as numerous boycotts against the state have taken place.

ANSWER: North Carolina

Boycotts in the other ideological direction were made against this national retail chain, whose April 2016 clarification of its bathroom policy allows bathroom access based on gender identity.

ANSWER: Target

(14) **The poor shielding of 4f electrons causes these elements to have a smaller ionic radius than expected, known as their namesake “contraction”. These elements, which typically have a +3 oxidation state, include samarium and europium. Yttrium, scandium, and these (*) fifteen elements are the rare earth metals. For ten points, name this collection of elements named after element 57, which are found above the actinides at the bottom of the periodic table.**

ANSWER: lanthanides

(14) These substances are often soapy and bitter, and Lewis defined them as electron donors. For ten points each,

Name these compounds that are contrasted with acids. Alkali metals are named for the fact that they form one of these substances in water.

ANSWER: bases

According to Arrhenius, when a base is added to water, this negatively charged ion will form.

ANSWER: hydroxide ion (accept OH⁻ [O-H-minus])

This strong smelling compound is a weak base, with formula NH₃. Nitrogen fixation converts atmospheric nitrogen into this compound.

ANSWER: ammonia (do not accept ammonium)

Extra Question

Only read if you need a backup or tiebreaker!

(15) **Susanna Dickinson’s life was spared at this location, so that someone lived to tell the tale. Supposedly, a “line in the sand” at this location was not crossed by the coward Moses Rose, who fled to Nacogdoches. William Travis led forces at this location, including James (*) Bowie and Davy Crockett. For ten points, name this San Antonio mission complex that was sieged by Santa Anna’s troops in 1836, ending in the deaths of all the defenders, a massacre that Sam Houston rallied to “remember!” during the Texan Revolution.**

ANSWER: The Alamo