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1. This geographic landmass was the home of Jemmy Button, a native who was abducted in the 1830s and may have tried to eat a royal advisor in London. This home to Mount Bove and Cabo San Pio also contains Londonberry, Magdalena, and Navarino Islands, and borders (*) Darwin Sound. Its southernmost point bounds the Drake Passage, and is known as Cape Horn. Bordering the Strait of Magellan, FTP, identify this archipelago on the tip of South America, whose name comes from the Spanish for "Land of Fire."
ANSWER: Tierra del Fuego
2. The masses of these particles are related by the Koide formula, which also predicted their largest member. Their universality principle describes their flavor-independent coupling with gauge bosons, and they have one or two spin states depending on charge. Characterized by (*) $1 / 2$ spins, they do not experience the strong nuclear force and with hadrons, comprise the fermions. FTP, identify these sub-atomic particles which include tauons, neutrinos, muons, and electrons. ANSWER: Leptons
3. He was born on Eridanus-II and taken from his parents at age 6, and was forced to abandon his best friend to death following a retrieval operation at the Damascus facility. A raid at Cote $D^{\prime}$ 'Azure was the last mission he undertook before the fall of (*) Reach, after which this wearer of MJOLNIR Mark IV entered cryogenic sleep on the Pillar of Autum. FTP, identify this bane of grunts, elites, brutes, jackals, and other members of the Covenant, the protagonist of the Halo series.
ANSWER: The Master Chief (accept Master Chief Petty Officer John 117)
4. Clarence Thomas criticized the interpretation of this case in his opinion in Missouri v. Jenkins, stating that the constitution is not concerned with psychological consequences. Rehnquist faced criticism over his memo concerning some "random thoughts" on the consequences of this ruling, which encompassed (*) Briggs v. Elliot, Gebhart v. Belton, and Bolling v. Sharpe. Argued by Thurgood Marshall, FTP, identify this 1954 Warren court ruling which stated that separate schools are inherently unequal.
ANSWER: Brown v. Board of Education of Topeka (accept either underline portion)
5. The two prominent figures in this painting wear rosaries with crosses, and a lone figure can be seen peeping out of a church in the background. A man with a scythe approaches an (*) upside-down violinist, and some upside down houses are depicted in the artist's home town of Vitebsk. A goat is being milked by a peasant in the titular locale in, FTP, which painting featuring a green dude face to face with some kind of livestock, created by Marc Chagall?
ANSWER: I And The Village
6. Unpublished works by this author include the poem "Ennui" and a set of personal memoirs which will be released in 2013 according to the will of Andrew Motion's predecessor as Poet Laureate. This writer penned The Magic Mirror while at Smith College, which also inspired characters like the (*) suicidal Joan and clueless Buddy Willard, who are encountered by this author's most famous character, Esther Greenwood. FTP, identify this wife of Ted Hughes and author of Ariel and The Bell Jar.
ANSWER: Sylvia Plath
7. Electric fields in the anisotropic "magnetized" forms possesses electric fields not affected by Debye Shielding, and exhibit typically high conductivity. Electron density within them is described by the Boltzmann Relation, and they are governed by the Saha equation, which describes the number of (*) free electrons per unit volume. Found in aurora, solar flares, and lightning, FTP, identify this fourth state of matter, essentially an ionized gas.
ANSWER: Plasma
8. Two symbols of colonialism in this present-day country are the Dutch Fort Anthonio and the Spanish Fort San Salvador. Thousands of people were killed here following the 288 massacre, and its legislature, the Legislative Yuan, follows the Three Peoples Principles of (*) Sun Yat-Sen, who both this country and its larger neighbor regard as a founding father. Ruled since the 1940s by Chiang Kai-Shek and the Kuomintang, FTP, identify this island south of China to which nationalist forces fled, with capital at Taipei.
ANSWER: Taiwan (accept Republic of China, but nothing mentioning the People's Republic)
9. Manannan's sword Fragarach gave its user power of this, and as a child Marduk was given four of these to play with. Vaayu was the Hindu god of it, and in Egyptian mythos Shu ruled over this phenomenon. In Greek myth, dominion over this entity was held by the (*) Amenoi, comprised of Notos, Euros, Zephyros, and Boreas. Aeolus was the master of, FTP, what meteorological phenomenon, generally divided based on direction, simply defined as flowing air? ANSWER: Wind (accept Air, but not storms or anything like that)
10. Trauma to this structure can be classified under either the Debakey or Stanford systems, and is often due to cystic necrosis arising form Ehlers-Danlos or Marfan's syndrome. Its ascending portion is bracketed by the brachiocephalic and coronary arteries, while this structure's (*) "arch" meets the carotid arteries. Receiving oxygenated blood from the left ventricle, FTP, identify this artery, the largest in the human body.
ANSWER: Aorta
11. Among the actions that led to the creation of this entity was a false geological report by William Cromwell, Carlos Finlay's publication of a research paper that led to experiments at Camp Lazear, and the nullification of the Clayton-Bulwer treaty by the (*) Hay-Pauncefote Treaty. George Goethals succeeded where Ferdinand de Lesseps had failed largely thanks to Walter Reed's efforts against yellow fever, leading to the 1914 completion of, FTP, what Central American waterway?
ANSWER: Panama Canal
12. A Greek god leans on a counter awkwardly holding grapes in this man's Young Sick Bacchus, while more secular works include Boy Bitten By Lizards, The Fortune Teller, and Boy Peeling a Fruit. A Florentine is being conned in his Cardsharps, while his best-known work was completed for the (*) Contarelli Chapel. Painter of Supper at Emmaus and The Entombment, both of which demonstrate chiaroscuro, FTP, identify this violent Baroque artist of The Conversion of Saint Paul and The Calling of Saint Matthew.
ANSWER: Michaelangelo Merisi de Caravaggio
13. This character tells his lover about his ability to think, wait, and fast, but the need for clothes and money prompts him to take a job with the merchant Kamaswamy. Earlier, he leaves his home with his friend (*) Govinda to learn the arts of the samanas, later meeting the ferryman Vasudeva with whom he learns to appreciate the river as the epitome of being. FTP, identify this title character of a Herman Hesse novel who shares his first name with that of the Buddha.
ANSWER: Siddhartha
14. Pencil and paper ready. Your teacher announces 5 questions and tells you that 3 of them will be randomly selected for the upcoming test. If you only bother to study 4 of the 5 questions, what is the probability that you will know how to solve every problem? Realize that there are(*) $n$ factorial divided by $n-1$ factorial times $r$ factorial ways to choose $r$ items from a set of $n$, and that the probability will be the number of ways to choose 3 questions from the 4 known divided by the total number of ways to create the test. FTP, what are your chances of acing the test? You have ten seconds.
ANSWER: $\underline{4 / 10}$ or $\underline{2 / 5}$ or $\underline{4}$
15. This man's early political maneuvering, performed while he was Duke of Edinburgh, was guided by his mother's lover Lord Bute, whom this monarch would late appoint Prime Minister. He granted Crown Land revenue to Parliament and under his reign Parliament gained control of (*) India. The husband of Queen Charlotte, Prime Ministers of this porphyria sufferer included Lord North, Pitt the Elder, and Grenville. FTP, identify this third Hanoverian king who ruled England during the American Revolution.
ANSWER: George III
16. Haruki Murakami's second novel of the Rat Trilogy depicts a man obsessed with this activity and pairs it with the number 1973, while an update of the commedia del arte tradition by Dario Fo proclaims that Archangels do not perform this activity. One classic description of this activity describes its prevalence "from Soho down to (*) Brighton," and centers on the prowess of Tommy Walker. FTP, identify this arcade game featuring silver balls whose "wizard" was the subject of a song by The Who.
ANSWER: Pinball
17. The death of a Salian king, who may have been Marovech, sparked conflict between this man and the general who would eventually defeat him. This host of Priscus possessed a cunning Moorish Dwarf, and had received a marriage proposal by Honoria, (*) Valentinian's sister, leading him to enter Gaul, prompting Theodoric and Flavius Aetius to meet him at Chalons in in 451. Leo I prevented the sack of Rome by, FTP, what "scourge of God" and noted Hun? ANSWER: Attila the Hun
18. When minerals like peridotite undergo metasomatism by this mineral's carbonate, magnesite can be formed. It can be formed with kyanite from chlorite and quartz, with calcite from silica and dolomite, and from the carbonation of serpentine. With schist, it comprises (*) soapstone and gives the mineral its waxy appearance. With a mohs hardness of just 1, FTP, identify this often white mineral whose powder is used in cosmetics and to treat diaper rash.

## ANSWER: Talc

19. At one point in this work, two terrified characters are almost tricked into dueling each other by Fabian and Andrew Aguecheek. Another character wears ridiculous yellow stockings and ends the play in a cage thanks to Maria, Toby Belch, and (*) Feste. Opening with a description of music as "the food of love" by Orsino, it concerns the crossdressing antics of Viola, who is stranded in Illyria. Alternatively titled "What You Will," FTP, identify this numerically and nocturnally titled Shakespeare play.
ANSWER: Twelfth Night, or What You Will
20. This work identifies historical falsehood, philosophy's rise over religion, and poetic demonology as causes of the death of the "light" of knowledge in its fourth section. Its third section discusses the Ten Commandments and describes a "Christian (*) Commonwealth," while the aforementioned final section discusses the Kingdom of Darkness. Also consisting of "Of Man," it describes the war of all against all and calls for strong government. FTP, identify this treatise named for a biblical sea monster, the best-known work of Thomas Hobbes.
ANSWER: Leviathan


October 2007
Packet 3:
Bonuses

1. Bonus: JS Bach's interaction with this ruler led to The Musical Offering. FTPE:
[10] Identify this Prussian monarch and successor of Frederick William I, who is generally considered to have been pretty good.
ANSWER: Frederick II or the Great of Prussia
[10] Frederick initiated this conflict following Charles VI's efforts to have Maria Theresa succeed to the Hapsburg throne via the Pragmatic Sanction of 1713.
ANSWER: War of the Austrian Succession
[10] This region, which touches the Oder and Vistula, was invaded and eventually made into a Prussian province by Frederick following the War of the Austrian Succession.
ANSWER: Silesia
2. Bonus: 30-20-10, identify the economic term:
[30] The subject of Samuelson's "Attorney Study," its major modern definition was put forth in the Hecksher-Ohlin model.
[20] Robert Torrens first described this concept in relation to the Corn Laws, though Ricardo examined it by discussing cloth and wine.
[10] Most associated with Ricardo, this principle relies on the fact that countries face different relative production costs and thus can benefit from trading. It is often contrasted with absolute advantage.

## ANSWER: Comparative Advantage

3. Bonus: It can be simply defined as the influence of random statistical chance on genetic variation in a gene pool. FTPE:
[10] Identify this term from population mechanics.

## ANSWER: Genetic Drift

[10] A population must be large enough to effectively neutralize the effects of genetic drift to fit this most famous population model, which related allele frequency and genotype.
ANSWER: Hardy-Weinberg Principle or Model or Equilibrium
[10] Genetic drift can be easily contrasted with this other evolutionary principle, which describes adaptations chosen for the advantage they convey rather than randomly developed. This two-word phrase was famous championed by Charles Darwin.
ANSWER: Natural Selection
4. Bonus: It ends following Rogozhin's murder of Nastasya Filippovna. FTPE:
[10] Identify this novel titled from the fact that its title character attempts to behave as a genuinely good man.
ANSWER: The Idiot
[10] This author of Notes from Underground, The Gambler, and Crime and Punishment wrote The Idiot.
ANSWER: Fyodor Dostoyevsky
[10] This epileptic goes absolutely insane after giving up happiness with Aglaya Yepantchina in a futile quest to "save" Nastasya. He is the title character of The Idiot and is usually referred to using his royal title.
ANSWER: Prince Lev Nikolayevich Myshkin (accept any name)
5. Bonus: Name these pharaohs, FTPE:
[10] This son of Seti I is known for his mortuary temple and construction project at Abu Simbel, for fighting the Hittites at Kadesh, and for being the pharaoh referenced in Genesis.
ANSWER: Ramesses II or the Great
[10] This ruler, advised by Ay, was in the process of reversing Akhenaten's monotheistic policies when his death led to a burial in a chamber that would later be famously discovered by Howard Carter.
ANSWER: Tutankhamun or King Tut
[10] Succeeded by Sekhemkhet and preceded by Khasakhemwy, this ruler commissioned the polymath Imhotep to construct a step pyramid at Saqqara.
ANSWER: Djoser or Tosarthos
6. Bonus: It is most easily created via the Corona Discharge method. FTPE: [10] Identify this triatomic molecule, the first allotrope ever discovered.
ANSWER: Ozone
[10] Ozone is an allotrope of this element, number eight.
ANSWER: Oxygen
[10] Ozone concentration in the stratosphere has been declining due to the presence of these haloalkanes, which contain three namesake elements and no hydrogen.
ANSWER: Chlorofluorocarbons
7. Bonus: Identify these documents from Judaism, FTSNOP:
[10] It is the most important document in Judaism, consisting of Genesis, Exodus, Leviticus, Numbers, and Deuteronomy.
ANSWER: The Torah (or the Five Books of Moses)
[10] This key source of rabbinic law offers numerous commentaries on the Tanakh. A "Jerusalem" variety was produced by Johanan ben Nappaha.
ANSWER: Talmud
[5,5] F5PE, these two collections are the primary constituents of the Talmud.
ANSWER: Mishnah and Gemara
8. Bonus: It was the subject of a series of "remarks" by Ludwig Wittgenstein. FTPE: [10] Identify this landmark work on comparative religion, written by James Frazer.
ANSWER: The Golden Bough
[10] Frazer took the title "Golden Bough" from a chapter in this epic by Virgil.
ANSWER: The Aeneid
[10] Frazer links the story of Jesus Christ with that of this Norse god of beauty, particularly the dying and returning to rule the world thing.
ANSWER: Baldur
9. Bonus: Identify these African countries given capitals, F5PE:
[5] Kenya.
ANSWER: Nairobi
[5] Botswana.
ANSWER: Gaborone
[5] Tanzania.
ANSWER: Dodoma (or Dar es Salaam)
[5] Liberia.
ANSWER: Monrovia
[5] Algeria.
ANSWER: Algiers
[5] Democratic Republic of the Congo.
ANSWER: Kinshasa
10. Bonus: One of his earliest works was an ornate display case for a glove manufacturer at a World's Fair exhibition. FTPE:
[10] Identify this Spanish architect, famous for the still under construction La Sagrada Familia church.
ANSWER: Antoni Gaudi
[10] Gaudi was a member of this artistic school, noted for its implementation of organicallyinspired, curvilinear designs. Other members included Victor Horta and members of the Vienna Secession.
ANSWER: Art Nouveau (accept Modernisme, Gaudi's particular school of Art Nouveau)
[10] Gaudi's works, including "The Quarry" and the Vicens House, decorate this major Spanish city found in Catalonia and named for a Carthaginian.
ANSWER: Barcelona
11. Bonus: It was discovered by Wilson and Penzias using a Dicke radiometer. FTPE:
[10] Identify this ubiquitous electromagnetic radiation, which is named for its presence in space and its peak frequency at 160.2 gigahertz.

## ANSWER: Cosmic Microwave Background Radiation

[10] CMBR is often cited as the best evidence to this well-known theory that the universe initiated following a really large explosion. It is an alternative to steady-state theory.
ANSWER: Big Bang Theory
[10] In the Sunyaev-Zel'dovich effect, high energy electrons distort the CMBR through the inverse variety of this type of scattering, named for an American physicist. It is normally characterized by a loss of energy in X-rays or gamma rays when they interact with matter.
ANSWER: Compton Scattering or Effect
12. Bonus: Identify these separatist organizations, FTPE:
[10] The "black" division of this organization is responsible for suicide bombings. They represent the namesake minority against the Sinhalese majority on Sri Lanka.
ANSWER: Tamil Tigers or the Liberation Tigers of Tamil Ealam
[10] This Canadian political party is dedicated to supporting, as their name suggests, independent sovereignty for Quebec, although they still want Canada to pay for Quebec's infrastructure.
ANSWER: Bloc Quebecois
[10] The most recent "ceasefire" of this Basque separatist group, whose symbol is a snake coiled around an axe, ended in 2006 following a bombing in Madrid.
ANSWER: Euskadi Ta $\underline{\text { Asskatasuna (or Basque Homeland and Freedom) }}$
13. Bonus: Identify these figures who became the subject of Homeric literature, FTSNOP:
[10] This crafty Greek's return to Ithaca, along with the actions of his wife Penelope and son Telemachus, forms the basis of the Odyssey.
ANSWER: Odysseus
[5,5] As the Iliad opens, these two Greeks are feuding over possession of the slave girl Briseis. One is a great warrior, the other is the commander of the Greek expedition.
ANSWER: Achilles and Agamemnon
[10] This old "Gerenian Horseman" is a Greek commander and advisor in the Trojan War. The father of Antilochus and Thracymedes, he ascended to the throne of Pylos after Heracles killed his father Neleus.
ANSWER: Nestor
14. Bonus: Identify these men who frequently receive sound beatings from Batman, FTPE:
[10] Harvey Dent is the real name of this nutty bad guy, who appropriately flips a coin. Oh, and half of his face is horribly mangled.
ANSWER: Two-Face
[10] This short, fat, umbrella-sporting character was played by Danny Devito in one of the bad Batman movies. His name evidently derives from trademark tuxedo.
ANSWER: The Penguin (or Oswald Chestefield Cobblepot)
[10] This gigantic freak once broke Batman's back. He is made super-strong by pumping Venom into his system, which has the unfortunate side effect of making him intermittently insane.
ANSWER: Bane
15. Bonus: Given some stars, identify the constellation, FTPE:
[10] Elnath and Aldebaran, as well as being home to the Crab Nebula and the Pleiades.
ANSWER: Taurus
[10] Murzim, Wezin, Adhara, and Sirius, the dog star.
ANSWER: Canis Major
[10] Sheliak, Sulafat, and Vega.
ANSWER: Lyra
16. Bonus: This man's most famous work was inspired by his friend, the artist Viktor Hartmann. FTPE:
[10] Identify this Russian composer of Night on Bald Mountain and Boris Gudonov. ANSWER: Modest Mussorgsky
[10] Mussorgsky is best-known for this promenade-laden piece, whose sections include The Catacombs and The Great Gate of Kiev. It takes place at a showing of Hartmann's paintings.
ANSWER: Pictures at an Exhibition
[10] Mussorgsky belonged to this numerically-named group of composers, which also included Rimsky-Korsakov, Cui, and Borodin.
ANSWER: The (Russian) Five (accept pretty much any modifier to the word "five")
17. Bonus: Andrew Jackson's attack on this institution prompted its director to call it a "manifesto of anarchy." FTPE:
[10] Identify this financial institution, which was chartered in 1816 after its original version expired. ANSWER: Second Bank of the United States (or Second National Bank)
[10] This director of the Second National Bank famously feuded with Jackson.
ANSWER: Nicholas Biddle
[10] Jackson went through two Treasury Secretaries attempting to circumvent the bank before this man agreed to fulfill his request. This Marylander is better known for authoring the Dred Scott decision as Chief Justice of the Supreme Court.
ANSWER: Roger Brooke Taney
18. Bonus: He is the author of Jesus, Son of Man, Earth Gods, and Nymphs in the Valley. FTPE: [10] Identify this Lebanese author whose most famous work describes the titular spiritual, Almustafa.
ANSWER: Khalil Gibran
[10] This aforementioned Gibran work uses the format of twenty-six poetic essays set in the city of Orphalese.
ANSWER: The Prophet
[10] Lines from Gibran's poem "Sand and Foam" were taken by this man and put into the song "Julia." He is better known for being a member of the Beatles and writing songs like "Imagine." ANSWER: John Lennon
19. Bonus: Identify the following German artists, FTPE:
[10] This man is best known for his Four Horsemen of the Apocalypse and Melancholia I, both of them woodcuts.
ANSWER: Albrecht Dürer
[10] This court painter of Henry VIII painted portraits of Henry and Sir Thomas More, but he is best known for painting The Ambassadors.
ANSWER: Hans Holbien the Younger
[10] This painter is best remembered for his Isenheim Altarpiece, dedicated to a monastery of St. Anthony.
ANSWER: Matthias Grünewald
20. Bonus: Name these linguistics terms, FTPE:
[10] This is a simple language formed as a means of communication between two or more groups that do not share a language. It is never a native language, and usually carries low prestige, such as the version of English famously used by Eliza Doolittle in Pygmalion.
ANSWER: Pidgin
[10] This example of a pidgin language was used as a diplomatic and commercial language in the Mediterranean for about eight hundred years. It literally translates to "Frankish Language." ANSWER: Lingua Franca or Sabir
[10] This is a stable form of a pidgin which usually has more complex grammar. It may be someone's native language and is not restricted to specific uses or examples, though the most prominent may be the language used by descendants of French colonists in Louisiana.
ANSWER: Creole

