

DACQ
Dynasty Academic Competition
Questions

December 2007
Packet 4:
Tossups

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1. This compound is hydrolyzed by an enzyme coded for by the Yt antigen. This neurotransmitter has two major receptors, muscarinic and nicotinic, characterized by the presence or absence of ion pore channels. Antibodies attack those receptors in myasthenia gravis, while a shortage of this substance in the brain is associated with (*) Alzheimer's. Nerve agents act by inhibiting its re-uptake, causing muscle spasms since this neurotransmitter functions muscle contraction. FTP, identify this neurotransmitter, one of the most important in the body along with serotonin and dopamine.

ANSWER: Acetylcholine

2. One of these creatures provides continual food for the Einherjar, and is known as Heidrun, while Toothgnasher and Toothgrinder were also able to be continually eaten and pulled the Chariot of Thor. The demon Azazel's expulsion on (*) Yom Kippur led to a Hebrew tradition in which one of these is driven off into the wilderness, leading to a modern term for a source of blame. Also including examples like Amalthea, FTP, identify this animal associated with modern conceptions of Satan, three of which pick on a hungry troll in a story about those named "Gruff."

ANSWER: Goats

3. This author of the poem "The Double Ninth" published a rare biographical essay about a surgeon, Norman Bethune, who had aided the Eighth Route Army, while writing like *On Practice* and *On Contradiction* would be put to the test during the Hundred Flowers Campaign. *On Protracted War* discusses the (*) guerrilla tactics he used to make the Long March and combat the Kuomintang under Chiang Kai-shek. Succeeded by Deng Xioping, FTP, identify this first leader of communist China.

ANSWER: Mao Zedong or Tse-Tung

4. This philosopher's first serious foray into ethical reasoning came in works like *Essay Moral and Political* and *An Enquiry Concerning the Principles of Morals*, in which he declares that sentiment must augment reason. G.E. Moore's Naturalistic Fallacy can be thought of as an extension of this philosopher's formulation of the "is-ought" problem, while the "problem" of (*) miracles is discussed in book ten of his most famous work. FTP, identify this author of *A Treatise on Human Nature*, a Scottish thinker best known for *An Enquiry Concerning Human Understanding*.

ANSWER: David Hume

5. In gel electrophoresis, this compound is often used to prevent RNA from forming secondary structures, and it was used by Salk to ensure the safety of the polio vaccine. This compound can be reacted with Grignard Reagents to form primary alcohols, while its cyclic trimer is used in modern antimalarial drugs. Silver or iron oxide is used in the catalytic oxidation of (*) methanol to form this compound, with chemical formula H₂CO. FTP, identify this simplest aldehyde, most famously used in embalming.

ANSWER: **Formaldehyde or Methanal**

6. Many prayers in Eastern Orthodoxy invoke these entities, which technically occur spontaneously with the recitation of the Angelus or completion of a Rosary. They can be either partial or plenary, and after the Council of Trent, a committee was formed under Clement VIII and Paul V to regulate them. Leo X made Johann (*) Tetzel commissioner of them for all of Germany in an attempt to raise money for the construction of St. Peter's Basilica, inspiring Luther's 95 Theses. FTP, name these entities granted by the Catholic Church which grant remission of punishment for already-committed sins.

ANSWER: **Indulgences**

7. This man's obsession with composer John Dowland led to works titled after Dowland's compositions, like *Flow My Tears, the Policeman Said* and to characters like the singer Linda Fox, who appears in *The Divine Invasion*. He wrote the "introductory novel" *Ubik* and told of Horselover Flat in the *Valis* trilogy. Other works concern a cop addicted to Substance D, the (*) pre-crime pre-cogs, an organization that records memories, and a bounty hunter tracking androids. Noted for *A Scanner Darkly*, *The Minority Report*, and "Do Androids Dream of Electric Sheep," FTP, name this science fiction author, whose works inspired movies like *Total Recall* and *Blade Runner*.

ANSWER: **Philip K(indred) Dick**

8. It was created for the Palazzo Medici courtyard and when the Medici family was temporarily ousted from Florence, it was moved to a more public location in the city. The long (*) hair, headwear, and feminine posture of the subject contrast with medieval figures, and his contrapposto stance is typical of the sculptor, who had earlier created another rendition of the subject. FTP, name this Donatello sculpture cast in bronze.

ANSWER: **Donatello's David** (prompt for artist if just "David" is given before "Donatello")

9. This battle saw Lew Wallace tank his military career by getting his division lost and wandering around aimlessly instead of reinforcing Sherman, who had three horses shot out from under him. Hardee, Polk, and Bragg assaulted a depressed road defended by Benjamin Prentiss, which came to be known as the (*) Hornet's Nest, but could not break union lines before Buell arrived. Seeing the death of Albert Sidney Johnston and the opening of Mississippi to Grant's army, FTP, identify this battle fought in Tennessee that is alternatively known as Pittsburgh Landing.

ANSWER: **Battle of Shiloh** (accept **Pittsburgh Landing** early)

10. He may have been created in the same accident that created Daredevil, but only if he is believed to be a former companion of Yoshi Hamato and not Yoshi himself. In three movie appearances, he watches lots of cable and befriends Casey Jones, while battling (*) Oroku Saki with his four trainees. FTP, identify this opponent of Shredder and sensei to Donatello, Leonardo, Michaelangelo, and Raphael, a giant rat from Teenage Mutant Ninja Turtles

ANSWER: **Splinter**

11. This author discussed stylistic difference between literature on different continents in *The Black Interpreters*, while photographs by David Goldblatt accompany the collection *On the Mines*. The Smales family are aided by their (*) black servant in one of her novels, while Rosa is the titular daughter of an SACP activist in another. The author of *July's People* and *Burger's Daughter*, FTP, identify this female Nobel Laureate from South Africa who wrote *The Conservationist*.

ANSWER: Nadine Gordimer

12. This man's most famous theories relied on Parseval's theorem applied within the Fourier Transform, while with Pascual and Born, he is credited with developing Matrix Mechanics. This author of the Gottingen Manifesto was painted as a hero by Robert Jungk, which caused (*) Niels Bohr to accuse him of aiding the Nazis develop nuclear technology. He is best known for formulating a theoretical experiment in which a photon is shot at an electron, which proved that one cannot simultaneously determine a particle's momentum and position. FTP, identify this physicist known for his Uncertainty Principle.

ANSWER: Werner Heisenberg

13. This polity did not participate in its namesake war that was ended with the Treaty of Fredrikshamn and which saw the House of Bernadotte created in Sweden. The navy of its namesake Grand Duchy fought in the Crimean War, while its civil war saw volunteers from this nation conduct the Viena expedition and ended with the Treaty of (*) Tartu. The Lapland and Continuation wars were waged against this nation, which saw the Battle of Raate Road fought when Russia invaded in the Winter War. FTP, identify this Scandinavian country with capital at Helsinki.

ANSWER: Finland

14. Although the speaker seems to observe someone who is sweating flames, he balks at the evaluation of his actions as "at lower rate" and promises they will be "vaster than empires/and more slow." Other images in this poem include "amorous birds or prey," "vegetable love," "deserts of vast (*) eternity," and the declaration that the speaker and the addressee "cannot make [their] Sun/Stand still," a reference to "Time's winged chariot" which embodies the poem's theme. FTP, identify this poem which begins "Had we but world enough, and time," in which Andrew Marvell tries to pick up the titular resistant woman.

ANSWER: To His Coy Mistress

15. A declaration named for this city followed the Lusaka Manifesto and called for violent resistance against Apartheid in South Africa. Leased by Italy from Barghash of Zanzibar, it lies about 30 miles from the Shebelle River. Halwadiig Road cuts through its Bakaara Market, which became famous after (*) Todd Blackburn's fall during operation Return Hope triggered a massive firefight between forces under Mohamed Farrah Aidid and US forces. The backdrop of the film Black Hawk Down, FTP, identify this African city on the Indian Ocean, the capital of Somalia.

ANSWER: Mogadishu

16. Pencil and paper ready. Find the probability of rolling three fair six-sided dice and getting a sum of 16. Because each dice is considered as an independent event, the probabilities of each roll are multiplied together, giving a denominator of 6 cubed, or 216, before any possible reducing. The numerator will consist of the (*) total possible ways of rolling a sum of 16. FTP, what is the chance of rolling a sum of 16?

ANSWER: 1/36 (664, 646, 466, 556, 565, 655 are the possible rolls, so 6/216)

17. This group was officially endorsed at the Council of Troyes, thanks to the propaganda of Bernard of Clairvaux. Edward II resisted the *Pastoralis Praeeminentiae* issued by Clement V against this group, to whom Philip IV of France was indebted, which led to (*) Jaques de Molay and others being burned at the stake and the order being formally abolished. Founded by Hugues de Payens and Godfrey de Saint-Omer and named for their headquarters on the ruins of a building of Solomon, FTP, identify this order of medieval knights, symbolized by a red cross, who were absorbed by the Hospitallers.

ANSWER: **Knights Templar**

18. The author described the plot as inspired by a play by Prosper Merrimee, while structurally it was used as a model for John Hersey's *Hiroshima*. Uncle Pio dotes on Camila Perichole in this work, who along with the (*) Viceroy is based on a real person. The relationship between Manuel and Esteban is central to this work, whose pivotal moment occurs when the Marquesa, her maid Pepita, and three others are seen dying by Brother Juniper. FTP, name this Thornton Wilder novel set in Peru in which the title entity collapses, killing five.

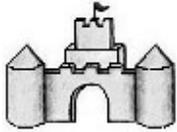
ANSWER: **The Bridge of San Luis Rey**

19. One major incidence of this substance comes in huge "pipes" imbedded in cratons, while a polycrystalline form may be linked with microscopic presolar grains of this material found in meteorite debris, both of which bear a black color. The core of white dwarfs may be made of this substance, which can exhibit replacements in lattice structure known as a (*) carbon flaw. Certain fullerenes are harder than this mineral, which rates 10 on the Mohs scale. FTP, identify this allotrope of carbon, a crystalline mineral known for being extremely hard and popular in engagement rings.

ANSWER: **Diamonds**

20. His early works include an adaptation of Jean Racine's *Mithradates, King of Pontus* and *Lucio Silla*, while Giuseppe Parini librettos featured in works like *Ascanio in Alba*. This composer of the *Haffner, Linz, and Prague* symphonies focused on Ilia's love for the son of the titular King of Crete in (*) *Idomeneo*, while his best known symphony is his forty-first, or the *Jupiter* symphony. Noted for *Abduction from the Seraglio, Don Giovanni, Cos fan tutte*, and *The Magic Flute*, FTP, identify this Austrian composer who probably was not killed by Salieri.

ANSWER: **Wolfgang Amadeus Mozart**



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Packet 4:
Bonuses

1. Bonus: Answer these questions about the Partitions of Poland, FTPE:

[10] Though only three formal Partitions of Poland occurred, a fourth is often identified as the creation of the Grand Duchy of Warsaw at this 1815 conference called by Metternich.

ANSWER: **Congress of Vienna**

[10] The military victories of Suvorov allowed this Russian monarch, who succeeded her useless, lunatic husband Peter III with the help of other generals like Potemkin, to partition Poland.

ANSWER: **Catherine II or the Great**

[10] The third partition occurred after the failed revolt of this Polish national hero, a namesake of an Australian mountain, who was slammed at the Battle of Praga.

ANSWER: **Tadeusz Kosciuszko**

2. Bonus: Given some writers who have won the Nobel Prize for Literature, identify their nationality on a 10-5 basis:

[10] Jacinto Benavente, Camilo Jose Cela.

[5] Juan Ramon Jimenez.

ANSWER: **Spain or Spanish**

[10] Harold Pinter, Doris Lessing.

[5] William Golding, Rudyard Kipling.

ANSWER: **United Kingdom of Great Britain and Northern Ireland or British (accept England or English)**

[10] Salvatore Quasimodo.

[5] Luigi Pirandello.

ANSWER: **Italy or Italian**

3. Bonus: Characters like Dick Johnson in this composer's *The Girl of the Golden West* were adapted from the writings of David Belasco. FTPE:

[10] Identify this Italian composer of *Manon Lescaut*, whose operas include one whose title character jumps from castle ramparts to escape Spoletta and Scarpia after the death of Mario.

ANSWER: **Giacomo Puccini**

[10] Goro and Sharpless appear in this Puccini opera about the relationship between Pinkerton and the Geisha Cio-Cio San, who produce the child Dolore.

ANSWER: **Madama Butterfly or Madame Butterfly**

[10] This opera about the pursuit of the titular daughter of King Altoum includes such offensively-named characters as Ping, Pang, and Pong, as well as Prince Calaf's moving "Nessun Dorma."

ANSWER: **Turandot**

4. Bonus: Identify the political figures who currently serve these cabinet positions in the Bush administration, FTPE:

[10] Secretary of Homeland Security.

ANSWER: **Michael Chertoff**

[10] Attorney General.

ANSWER: **Michael Mukasey**

[10] Secretary of the Treasury.

ANSWER: **Henry Paulson**

5. Bonus: His raunchy *Ars Amatoria* got him banished the Black Sea, where he hung out with Scythians according to a painting by Delacroix. FTPE:

[10] Identify this Roman poet of *Heroides* and *Remedia Amoris*.

ANSWER: **Publius Ovidius Naso**

[10] Ovid is best known for this poetic collection tracing the early mythological history of the world.

ANSWER: **The Metamorphoses**

[10] Ovid's *Fasti* constructs the Roman example of one of these objects, which included subdivisions like Quintilis, Martius, and Maius.

ANSWER: **Calendar**

6. Bonus: This reaction is generally classified as either acylation or alkylation, and can be modified via the Zincke-Suhl or School reactions. FTPE:

[10] Identify this reaction, which sees a strong Lewis acid act on an aromatic ring and an alkyl halide, and is named for two German chemists.

ANSWER: **Friedel-Crafts Reaction**

[10] The Gatterman-Koch variant of the Friedel-Crafts Reaction involves the use of aluminum chloride, carbon monoxide, copper chloride, and this acid, symbolized HCl.

ANSWER: **Hydrochloric Acid**

[10] An environmentally friendly version of the Friedel-Crafts reaction, aluminum chloride is replaced with this most stable allotrope of carbon, sometimes used as an industrial lubricant but named for its more common use.

ANSWER: **Graphite**

7. Bonus: Given some buildings, identify the religion with which they are associated, FTPE:

[10] Fire Temples are confluences for *ashe*, which flows from Ahura Mazda in this oldest monotheistic religion.

ANSWER: **Zoroastrianism**

[10] Shwedagon and Sanchi are among the most famous examples of the Stupas, the original of which housed the ashes of this religion's founder.

ANSWER: **Buddhism**

[10] Although the center of secular political controversy, a military shrine which contains tributes to men who died in conflicts like the Boshin and Southwest Wars is actually a religious building to the primary spirits of this religion.

ANSWER: **Shintoism (the question refers to the Yasukuni Shrine)**

8. Bonus: Identify these ships involved in major diplomatic incidents between the US and Britain, FTPE:

[10] The Embargo Act was instituted largely in response to the *Leopard* attacking this American ship and impressing four British Naval deserters.

ANSWER: **The USS Chesapeake**

[10] Allan MacNab and Andrew Drew murdered Amos Durfee and sent this ship plunging in flames over Niagara Falls in a namesake “affair” that exacerbated tensions with Canada.

ANSWER: **SS Caroline**

[10] Helmed by William Dudingston, while chasing the *Hannah*, this British ship that was charged with enforcing trade regulations ran aground in Rhode Island. Irate Sons of Liberty led by Abraham Whipple promptly looted and burned it.

ANSWER: **HMS Gaspee**

9. Bonus: Identify these pioneers of the detective genre in literature, FTPE:

[10] This American author of *The Raven* and “The Fall of the House of Usher” introduced detective fiction with tales of C. Auguste Dupin, who appears in *The Mystery of Marie Roget* and *The Purloined Letter*.

ANSWER: **Edgar Allan Poe**

[10] This author of *The Mousetrap* created the quintessential investigator, Hercule Poirot, who first appeared in *The Mysterious Affair at Styles*.

ANSWER: **Agatha Christie**

[10] This author of *Armandale*, *The Woman in White*, and *No Name* wrote what is generally considered to be the first work of detective fiction, a story narrated by Mr. Bruff, Drusilla Clack, and Gabriel Betteredge called *The Moonstone*.

ANSWER: **(William) Wilkie Collins**

10. Bonus: It is currently cited as the strongest evidence against Steady-State theory. FTPE:

[10] Identify this electromagnetic radiation, predicted by Alpher and Gamow and discovered by Penzias and Wilson at Bell Labs.

ANSWER: **Cosmic Microwave Background Radiation (prompt on partial answer)**

[10] CmBR thus supports this hypothesis of universal creation, which opposes steady-state and involves a really huge explosion that started pretty much everything.

ANSWER: **Big Bang**

[10] The Sunyaev-Zel'dovich Effect occurs when high-energy electrons distort the CmBR through the inverse form of this process, a type of scattering exemplified by the decrease in energy and increase in wavelength of a photon upon interacting with matter.

ANSWER: **Compton Scattering**

11. Bonus: Given a description of a somewhat long-lived television show's final episode, identify the show, FTPE:

[10] A few weeks after Nate's death, a final montage shows the fates of all characters culminating in, fittingly, their deaths.

ANSWER: **Six Feet Under**

[10] While fleeing an Ori vessel, Samantha Carter creates a time dilation field in which Cameron Mitchell, Daniel Jackson, and others live out their lives while fractions of seconds pass in the real world. Then everything goes back to normal.

ANSWER: **Stargate: SG-1 (prompt on just "Stargate")**

[10] The violation of the Good Samaritan law of Latham, Massachusetts proves costly for the central characters, who are sentenced by Judge Arthur Vandelay.

ANSWER: **Seinfeld**

12. Bonus: This city contains Ulugh Begh's massive astronomical observatory and the Bibi-Khanym Mosque. FTPE:

[10] Name this city, currently the second-largest in Uzbekistan.

ANSWER: **Samarkand**

[10] Samarkand was used as a new capital by this conqueror, who feuded with the Tughlaq dynasty as well as Tokhtamysh. He was notably crippled.

ANSWER: **Timur the Lame or Tamerlane**

[10] The first non-Chinese paper mill in the world was constructed in Samarkand due to knowledge gained from the Battle of Talas, where Ziyad ibn Salih defeated forces of this Chinese dynasty, which saw lots of Eunuch problems and an interruption by Empress Wu Zeitan's second Zhou.

ANSWER: **Tang Dynasty**

13. Bonus: This author of *On the Improvement of Understanding* and *Principles of Cartesian Philosophy* is one of the few men to ever be issued a writ of *cherem*, or excommunication from Judaism. FTPE:

[10] Identify this Dutch thinker who wrote *Tractatus Theologico-Politicus*.

ANSWER: **Baruch Spinoza**

[10] This famous work of Spinoza is geometrically arranged and includes chapters on The Power of Understanding, The Origin and Nature of Emotions, and The Origin and Nature of the Mind.

ANSWER: **Ethics**

[10] The title of this Austrian philosopher's seminal work was inspired by Spinoza's *Tractatus Theologico-Politicus*. He also wrote *Culture and Value*, *On Certainty*, and *Philosophical Investigations*.

ANSWER: **Ludwig Wittgenstein**

14. Bonus: Identify these mythological objects, FTPE:

[10] When this object is shaken, Mount Ida is surrounded with clouds. It is usually characterized as a gold-tasseled shield or buckler used by Zeus, and has come into use in modern language as a synonym for protection.

ANSWER: **Aegis**

[10] Bird spit, cat footsteps, and fish breath are among the constituent parts of this ribbon, the successor to ledingr and dromi, which was used to bind Fenrir in Norse myth.

ANSWER: **Gleipnir**

[10] These dolls, important in Hopi religious practices, embody the namesake natural forces or spirits from the land of the Lake of the Dead, and are usually given as part of rite-of-passage ceremonies.

ANSWER: **Kachina (or Katsina) Dolls**

15. Bonus: Identify these model organisms used in scientific experiments, FTPE:

[10] Baker's variety of this organism is notable for possessing almost no junk DNA. These organisms are more famous for being used to make bread rise.

ANSWER: **Yeasts**

[10] Morgan conducted a famous experiment on genetics using this organism, colloquially called a fruit fly.

ANSWER: **Drosophila Melanogaster**

[10] Often considered the quintessential model organism, this nematode has five autosomes and one pair of sex chromosomes. It has been used in countless biological experiments.

ANSWER: **C(aenorhabditis) Elegans**

16. Bonus: This author of *The Rum Diary* investigated the notorious motorcycle gang in *Hells Angels: A Strange and Terrible Saga*. FTPE:

[10] Identify this recently-deceased American author, who initiated a form of journalism in which the authors become central actors in the stories they document.

ANSWER: **Hunter S. Thompson**

[10] This term was coined by Bill Cardoso in response to Thompson's article *The Kentucky Derby is Decadent and Depraved*. It refers to the aforementioned style of journalism and in no way was derived from a blue, alien Muppet.

ANSWER: **Gonzo Journalism**

[10] Thompson may be best known for this work in which Dr. Gonzo and Raoul Duke engage in an absolutely silly amount of illegal drug use while covering a motorcycle race for Sports Illustrated.

ANSWER: **Fear and Loathing in Las Vegas: A Savage Journey to the Heart of the American Dream**

17. Bonus: This author discussed “false needs” in his *One-Dimensional Man*. FTPE:

[10] Identify this German sociologist, who critiqued Hegel in *Reason and Revolution* and wrote *The Aesthetic Dimension*, but remains most famous for discussing the reality principle and claiming historical institutions lead to repression in *Eros and Civilization*.

ANSWER: **Herbert Marcuse**

[10] Marcuse’s *Eros and Civilization* builds on this man’s *Civilization and its Discontents*. This Austrian thinker is remembered for discussing the influence of the id, ego, and superego and for founding psychoanalysis.

ANSWER: **Sigmund Freud**

[10] During his time at Columbia, Marcuse befriended this American author of *The Sociological Imagination* and *The Causes of World War Three*, who discussed the leaders of the military, political and economic forces in America in *The Power Elite*.

ANSWER: **C(harles) Wright Mills**

18. Bonus: Answer these questions about the science of Bovine Flatulence, FTPE:

[10] It is belching, rather than flatulence, that actually accounts for the disturbingly high amount of this gas, with formula CH₄, produced by cattle.

ANSWER: **Methane**

[10] Methane is a greenhouse gas, along with carbon dioxide and this gas, which attacks ozone in the stratosphere but is better known for its use as an analgesic in the dental industry.

ANSWER: **Nitrous Oxide or N₂O**

[10] The methanogens in cattle guts may conduct methanogenesis with the aid of a salt of this chemical, also called ethanoic acid, with formula CH₃COOH.

ANSWER: **Acetic Acid**

19. Bonus: 30-20-10, name the artist from works:

[30] *Portrait of Jo, An Encounter*.

[20] *The Sleepers, The Origin of the World, The Artist’s Studio*.

[10] *Burial at Ornans, The Stonebreakers*.

ANSWER: **Gustave Courbet**

20. Bonus: Given the head of state, identify these South or Central American countries, F5PE:

[5] Evo Morales.

ANSWER: **Bolivia**

[5] Luiz Lula da Silva.

ANSWER: **Brazil**

[5] Daniel Ortega.

ANSWER: **Nicaragua**

[5] Alvara Uribe.

ANSWER: **Colombia**

[5] Nicanor Duarte.

ANSWER: **Paraguay**

[5] Oscar Arias.

ANSWER: **Costa Rica**