

DACQ

*Dynasty Academic Competition
Questions*

*August 2007
Packet 4:
Tossups*

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1. The equation on Boltzmann's tombstone was actually formulated by this man, who was also the first to give a value for Boltzmann's constant. Einstein used his work to circumvent the Ultraviolet Catastrophe, and this mentor to (*) Gustav Hertz won a Nobel in 1918. FTP, name this formulator of quantum theory famous for a namesake constant equal to 6.62 times ten to the negative 34 Joule seconds and symbolized h .

ANSWER: **Max Planck**

2. This piece features a nearly unchanging ostinato rhythm on the drums throughout, and it was approached in a similar style as the composer's earlier *Menuet* and *Pavan*. Originally, the composer had tried to adapt Isaac Albeniz's (*) *Iberia*, but instead combined an original melody with elements of Spanish music. FTP, identify this one-movement piece of Maurice Ravel.

ANSWER: **Bolero**

3. Key factors relating to this action included the reports of the agent "Aragon" and the location of "War Against the Bandits" participants. Operation Puma failed, and the primary action of Operation Zapata was carried out by Brigade 2506, though on (*) Soviet advice dissidents were rounded up and the assault received little popular support. Blighting the Kennedy administration, FTP, identify this failed assault by CIA-trained Cuban exiles against Castro at the namesake body of water.

ANSWER: **Bay of Pigs (or Playa Giron or even Bahia de Cochinos)**

4. This character once won a swimming match against Breca, and later swims home in full armor after helping Hygelac with a raid against the Franks. In a more famous exploit, he uses the sword Hrunting to slay a foe whose (*) son's arm he had previously removed while defending Heorot, king Hrothgar's mead hall. FTP, identify this man who kills a dragon, Grendel, and Grendel's mother, the namesake of an Old English epic poem.

ANSWER: **Beowulf**

5. This man's *Description of the Human Body* was published posthumously, and his first work was the *Compendium Musicae*. His *Principals of Philosophy* includes a letter to a later patron, Queen Christina, and he made statements like (*) "nothing comes from nothing" in his *Meditations on First Philosophy*. FTP, name this Frenchman, also known for his *Discourse on Method* which contains the line "I think, therefore I am."

ANSWER: **Rene Descartes**

6. This area contains the Richat Structure, and groups that inhabited it included the Garamantes, who inspired Roman irrigation. The city of Taghaza lay on its northern end, whose boundary is determined by the maturation of Phoenix Dactylifera, or Date (*) Trees, while its southern boundary is separated from the Sudan by the Sahel. Containing much of Niger, Chad, and Libya, FTP, identify this massive desert of northern Africa.

ANSWER: **Sahara**

7. Tollen's reagent often performs this function, forming a "silver mirror," while other compounds that frequently enact it include permanganate salts and most halogens. When it occurs completely in combustion reactions carbon dioxide is (*) created, and examples of this process include the browning of fruit and the tarnishing and rusting of metals. FTP, identify this process in which electrons are lost, as contrasted with reduction.

ANSWER: **Oxidation-Reduction (prompt on Redox)**

8. In this work, the cowardice of Berrendo is contrasted with the courage of young Joaquin, who disregards charges that his superiors' sons are safe. The protagonist loves a character he calls "rabbit" and contemplates his father's suicide before waiting with a (*) machine gun for an advancing force. Including the characters Pilar, Pablo, and Maria and named from a John Donne poem, FTP, identify this tale of Robert Jordan and the Spanish Civil War, written by Ernest Hemingway.

ANSWER: **For Whom the Bell Tolls**

9. Devlet Giray's pyromania caused problems for this man, and the arrest of Hans Schlitte's artisans in Lubeck prompted him to engage the Teutonic Knights in the Livonian War. He employed the *oprichniki* to control the (*) boyars, and commemorated his taking of Kazan with St. Basil's cathedral, after which he supposedly blinded the architects. Noted for beating his pregnant daughter-in-law and killing his own son, FTP, identify this notoriously cruel Rurikid Czar.

ANSWER: **Ivan IV Vasilyevich or Ivan the Terrible or Ivan Grozny**

10. Pencil and paper ready. Eric is one minute late submitting his tournament packet, and is charged \$5 extra by the TD, plus \$3 more for each subsequent minute the packet is late. Eric submits the packet 15 minutes late. Determine Eric's total late charge, realizing that it is the (*) 15th term of an arithmetic sequence beginning 5, 8, 11, with a constant difference of three between terms. FTP, how much is Eric charged? You have ten seconds.

ANSWER: **\$47 [shortcut: $t=3n+2$, where $n=14$]**

11. The majority opinion in this case cited Edward Coke's writings on the Bonham case, relying heavily on British law. The first man to take action that would lead to this case was Levi Lincoln, who sought to circumvent the "Midnight (*) Judges" Act by preventing the plaintiff and others from being appointed Justices of the Peace. FTP, identify this case lodged against a Secretary of State in which John Marshall laid the basis for Judicial Review.

ANSWER: **Marbury v. Madison**

13. This structure is bounded by the medial and lateral epicondyle and the greater and lesser trochanter, the latter two of which are affected during a transcervical fracture of this bone. The insertion point for the adductor magnus and (*) gluteus maximus, it articulates with the patella and tibia. The longest and strongest bone of the human body, FTP, identify this "thigh bone."

ANSWER: **Femur (prompt early on "thigh bone")**

14. This graduate of Sandy Springs High School spent the summer of 2006 constructing a modern toilet system in rural Bolivia, and Paul Oliver's performance against this athlete helped the latter in the supplemental draft. Despite the presence of Mike Furrey and Roy (*) Williams, this player was selected after Jamarcus Russell by the Detroit Lions. FTP, identify this former Georgia Tech wide receiver and second overall pick in the 2007 NFL draft.

ANSWER: **Calvin Johnson**

15. According to Saxo Grammaticus, Miming became problematic for this figure, and other antagonists include Thokk, while Hermod led a group trying to assist him. This father of Forseti owns the ship Hringhorni and lives in Breidablik, and his (*) demise was brought about by Hod's stupidity and a weakness for a certain plant. FTP, identify this fairest Norse deity and son of Odin and Frigg, whose death was the result of projectile mistletoe.

ANSWER: **Baldur**

16. This element is used with cobalt in a namesake carbide as an industrial alternative to diamond because of its hardness, and it is the only element in the third transition series to appear in biomolecules, where it is used in oxyreductase. Its ores include (*) scheelite and, more famously, wolframite, which lends this element its alternate name. Used in light bulb filaments because of its melting point, FTP, identify this metal with symbol W.

ANSWER: **Tungsten (accept W early)**

17. The surrounding land was once owned by Albert de Gondi, and the first structures here were created by Philibert Le Roy. Following the Treaty of Nijmegen, Le Notre and Le Vau were commissioned to work here, while Charles (*) Lebrun worked with Mansart to design its more famous features, including the Hall of Mirrors and, later, extravagant gardens. FTP, identify this palace complex outside Paris, the namesake of a treaty ending World War I.

ANSWER: **Palace of Versailles**

18. This man wrote about the influence of ancient philosophers like Cicero in his *Convivio* and discussed the relationship between Latin, Occitan, and his own language in *De Vulgari Eloquentia*. This Guelph also penned (*) *La Vita Nuova* representing his awakening after meeting a member of the Portinari family, who guides him through Paradise in his best known work. FTP, name this Italian admirer of Beatrice who wrote *The Divine Comedy*.

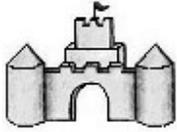
ANSWER: **Dante Alighieri (accept either name)**

19. This body has the most eccentric orbit of any solar system planet, but the smallest axial tilt at 0.01 degrees. During its perihelion period, its angular rotational velocity exceeds its angular orbital velocity, meaning that the sun appears to reverse its direction at some point during this planet's (*) eighty-eight day year. Explored by Mariner 10, FTP, name this smallest planet in the solar system, the closest planet to the sun.

ANSWER: **Mercury**

20. This man's novels include *Immaturity* and *Love Among the Artists*, and he is noted for his lengthy commentaries in the prefaces to his best-known genre. His "pleasant" plays include *Candida* and *Arms and the Man*, and the famous (*) "Don Juan in Hell" scene can be found in *Man and Superman*. The creator of characters like Vivie Warren and Henry Higgins, FTP, identify this Irish winner of the 1925 Nobel, who wrote plays like *Major Barbara* and *Pygmalion*.

ANSWER: George Bernard Shaw



DACQ

Dynasty Academic Competition Questions

August 2007
Packet 4:
Bonuses

1. Bonus: This author of the collection *Imaginary Homelands* divorced his wife, Padma Lakshmi, just after he was knighted in 2007. FTPE:

[10] Identify this author of *Grimus* and *The Moor's Last Sigh*.

ANSWER: **Salman Rushdie**

[10] Rushdie lived underground for many years following a *fatwa* related to the publication of this novel about Saladin Chamcha and Gibreel Farishta.

ANSWER: **The Satanic Verses**

[10] The telepath Saleem Sinai is one of the many titular characters of this famous Rushdie novel, named for those born the exact moment of India's independence.

ANSWER: **Midnight's Children**

2. Bonus: Identify these famous French paintings in which prominent people die, FTPE:

[10] This Jacques-Louis David work features the author of *The Friend of the People* shortly after an unpleasant knifing by Charlotte Cordet.

ANSWER: **The Death of Marat**

[10] This *other* David painting shows the titular figure surrounded by followers, and holding a chalice, the instrument of his demise, up in the air.

ANSWER: **The Death of Socrates**

[10] This Delacroix painting depicts an unfortunate Assyrian king's harem being executed and his property destroyed as he is about to light himself on fire.

ANSWER: **The Death of Sardanapalus**

3. Bonus: Identify the following members of the McKinley administration, FTPE:

[10] This Secretary of State is known for being the architect behind the open-door policy, and for lending his name to treaties with Herran, Pauncefote, and Bunau Varilla.

ANSWER: **John Hay**

[10] This Secretary of War established a civil service system for the consular office, and was awarded the 1912 Nobel Peace Prize for his work improving international relations.

ANSWER: **Elihu Root**

[10] An earlier Secretary of State was this man, who wrote namesake Antitrust and Silver Purchase acts. His brother William Tecumseh was a civil war general who notably took Atlanta.

ANSWER: **John Sherman**

4. Bonus: Identify these professional sports trophies, FTPE:

[10] Tiffany's produces this seven-pound trophy awarded annually to the winner of the Super Bowl, named for a legendary Packers coach.

ANSWER: **Vince Lombardi Trophy**

[10] This award is given to the top national male and female college basketball players. It is named for a ten-time champion coach at UCLA.

ANSWER: **John R. Wooden Award**

[10] Gentlemanly conduct and sportsmanship along with play factor into this annual NHL award named for the wife of a former Canadian Governor General.

ANSWER: **Lady Byng Memorial Trophy**

5. Bonus: This poem's speaker states "I should have been a pair of ragged claws/scuttling across the floors of silent seas." FTPE:

[10] Identify this poem which begins "Let us go then, you and I."

ANSWER: **The Love Song of J. Alfred Prufrock**

[10] This author of *Gerontion*, *The Elder Statesmen*, and *The Wasteland* wrote *The Love Song of J. Alfred Prufrock*.

ANSWER: **Thomas Stearns Eliot**

[10] In another stanza of the poem, the speaker declares that "In the room, the women come and go/Talking of" this renaissance artist.

ANSWER: **Michaelangelo**

6. Bonus: Phosphorus, tin, and bismuth all have allotropes that behave like this group of elements.

FTPE:

[10] Identify this set of chemical elements, such as Tellurium, which exhibit properties of both metals and nonmetals.

ANSWER: **Metalloids**

[5,5,5,5] FFPE, identify any four of the six other metalloids, most of which are also used commercially as semiconductors.

ANSWER: **Boron, Silicon, Germanium, Arsenic, Polonium, Antimony**

7. Bonus: Identify these figures that did not care for capitalism, FTPE:

[10] This author of *On the Jewish Question* and *Das Kapital* famously declared "a spectre is haunting Europe" in *The Communist Manifesto*.

ANSWER: **Karl Marx**

[10] Marx's co-author on *The Communist Manifesto*, this man spent considerable time in Manchester and wrote works like *The Condition of the Working Class in England*.

ANSWER: **Friedrich Engels**

[10] This Jewish anarchist met with Leon Czolgosz before he shot McKinley, and would go on to publish *Mother Earth* before she was deported to Russia.

ANSWER: **Emma Goldman**

8. Bonus: Identify these concepts from Java programming FTPE.

[10] Java is platform independent because a compiler first translates the code into Java bytecode, which is then run on this type of program, abbreviated “VM.”

ANSWER: **Virtual Machine**

[10] All functions in Java are this type of function, which identifies a subroutine associated with either a class or an object.

ANSWER: **Method**

[10] The main method in a Java class must be of this return type, and not “null.”

ANSWER: **Void**

9. Bonus: Given a list of 20th century leaders, identify the African nation they led, FTPE:

[10] Milton Obote, Idi Amin.

ANSWER: **Republic of Uganda**

[10] Anwar al Sadat, Gamal Nasser, Hosni Mubarak.

ANSWER: **Arab Republic of Egypt**

[10] John Kufuor, Kwame Nkrumah.

ANSWER: **Republic of Ghana**

10. Bonus: Given a body of water and a date of publication, identify the poem which is set wholly or partially on its banks, FTPE. If you need the author, you’ll get five points.

[10] The Wye River. 1798.

[5] William Wordsworth.

ANSWER: **Lines Composed a Few Miles Above Tintern Abbey, On Revisiting the Banks of the Wye During a Tour. July 13, 1798.**

[10] The river Alf, which flows through Xanadu. 1816

[5] Samuel Taylor Coleridge.

ANSWER: **Kubla Khan, or a Vision in a Dream: A Fragment**

[10] Gitche Gumee, which actually refers to Lake Superior. 1855.

[5] Henry Wadsworth Longfellow.

ANSWER: **The Song of Hiawatha**

11. Bonus: Identify the following sugar molecules, FTPE:

[10] This simple sugar with chemical formula C₆H₁₂O₆ is broken down from glycogen and starch in plants and animals, respectively. Glycolysis breaks it down to produce ATP.

ANSWER: **Glucose**

[10] Fittingly found in berries and melons as well as honey, this sugar is recommended for those suffering from diabetes because it has a much lower glycemic index than sucrose, which is formed by the union of this molecule with glucose.

ANSWER: **Fructose**

[10] The enzyme lactase breaks lactose down into glucose and this sugar, often called “brain sugar.”

ANSWER: **Galactose**

12. Bonus: Isaac Davis and John Young supplied this man with western weapons. FTPE:

[10] Identify this man who unified islands like Molokai and Oahu, known as the “Napoleon of the Pacific.”

ANSWER: **Kamehameha I or the Great**

[10] This seventh successor of Kamehameha tried unsuccessfully to repeal the Bayonet Constitution and was removed from power when Samford Dole proclaimed her kingdom a republic.

ANSWER: **Liliuokalani**

[10] Kamehameha and Liliuokalani ruled over this kingdom, which would become the 50th US state.

ANSWER: **Hawaii**

13. Bonus: Identify these Russian authors, FTPE:

[10] His works include *Notes of a Young Doctor* and *The Fatal Eggs*, though he’s best known for authoring *The Master and Margarita*.

ANSWER: **Mikhail Bulgakov**

[10] This author of *Notes from Underground* and *The Gambler* famously told of Marmaladov and Raskolnikov in *Crime and Punishment*.

ANSWER: **Fyodor Dostoyevsky**

[10] This author of the short stories *Torrents of Spring*, *First Love*, and *Fortune’s Fool* is better known for novels like *Rudin* and *Fathers and Sons*, which inspired the philosophy of Nihilism.

ANSWER: **Ivan Turgenev**

14. Bonus: This man deliberately set the *Tigris* aflame to protest the wars in countries bordering the Red Sea. FTPE:

[10] Identify this Norwegian, who had used that reed boat to demonstrate a theory about trade among the Indus Valley civilization.

ANSWER: **Thor Heyerdahl**

[10] Heyerdahl’s most famous expedition was spent on this balsa wood craft which arrive at the Tuamotu Islands after departing Peru.

ANSWER: **Kon-Tiki**

[10] Two boats with this mythological name were created using materials from Lake Tana and Lake Titicaca, respectively, as an attempt to cross the Atlantic from Morocco.

ANSWER: **Ra**

15. Bonus: Two previous clashes of this name were known as the battles of Zonchio and Modon. FTPE:

[10] Identify this decisive 1571 naval battle which saw the Turkish fleet under Ali Pasha defeated by the Holy League.

ANSWER: **Battle of Lepanto**

[10] This illegitimate son of Charles V led the Holy League to victory at Lepanto. His other actions include losing at Rijmenam and putting down the Morisco revolt in Spain.

ANSWER: **Don Juan or John of Austria**

[10] This author of *Noveles Ejemplares*, *La Galatea*, and *Don Quixote* fought and was wounded at Lepanto.

ANSWER: **Miguel de Cervantes**

16. Bonus: It was commissioned by Elizabeth Sprague Coolidge. FTPE:

[10] Identify this American ballet famous for the Quaker hymn "Simple Gifts."

ANSWER: **Appalachian Spring**

[10] This composer of *Inscape*, *Rodeo*, and *Billy the Kid* created *Appalachian Spring*.

ANSWER: **Aaron Copeland**

[10] Before receiving its name from Hart Crane's poem *The Bridge*, *Appalachian Spring* was entitled *Ballet for Martha* as a nod to this choreographer.

ANSWER: **Martha Graham**

17. Bonus: Identify these South American rivers, FTPE:

[10] Generally cited as the second-longest river in the world, this river's namesake rainforest covers a significant portion of South America.

ANSWER: **Amazon River**

[10] This site of the Itaipu Dam flows through Argentina and makes up part of the Brazil-Paraguay border. Its name means "like the sea" and is not a reference to a carnivorous fish.

ANSWER: **Parana River**

[10] It is divided into four sections, including the Delta Amacuro, which empties into the Gulf of Paria. It runs through Venezuela and Columbia.

ANSWER: **Orinoco River**

18. Bonus: Given a list of figures important to a religion, identify that religion, FTPE:

[10] Amaterasu, Susanowo, and numerous other *kami*.

ANSWER: **Shintoism**

[10] Mithras, Angra Mainyu, Ahura Mazda.

ANSWER: **Zoroastrianism**

[10] Arjun, Ram, Gobind Singh, Nanak.

ANSWER: **Sikhism**

19. Bonus: Identify the following related terms from electromagnetism, FTPE:

[10] This property, one way to measure how strongly an object opposes the flow of electricity, is related to voltage and current in Ohm's Law.

ANSWER: **Electrical Resistance**

[10] This property, also a measure of opposition to current, is symbolized "rho" and is equal to resistance times an object's cross-sectional area divided by its length.

ANSWER: **Electrical Resistivity (accept Specific Electrical Resistance)**

[10] This property extends resistance to AC current. It is a complex number whose real part is resistance and whose complex part is the reactance, and is symbolized Z.

ANSWER: **Electrical Impedance**

20. Bonus: Identify the following prime ministers of Canada, FTPE:

[10] This Conservative succeeded Paul Martin and is the current Prime Minister, gaining office on a platform of deploying military forces to assert Canadian sovereignty in the arctic, among other initiatives.

ANSWER: **Stephen Harper**

[10] This Quebec native led the Liberal party from 1993-2003. He was succeeded by Martin.

ANSWER: **Jean Chretien**

[10] This prime minister won the 1957 Nobel Peace Prize for helping negotiate an end to the Suez crisis. He succeeded John Diefenbaker.

ANSWER: **Lester Pearson**