

DACQ

*Dynasty Academic Competition
Questions*

*September 2007
Packet 3:
Tossups*

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1. The use of skins of predators like cougars and wolves is taboo in this people's culture, due to folk myths about skin-walkers. "The fearing time" for this people began with James Carleton and Kit Carson's raids, and their leaders included Barboncito and Manuelito, who made the (*) Long March. Native to the Four Corners region, FTP, name this Native American tribe whose members served as code talkers during World War II.

ANSWER: Navajo or Dine

2. After completing research on the magnetic properties of steel, this student was greatly influenced by the 1895 discoveries by Wilhelm Roentgen of x-rays and by Henri Becquerel of mysterious weaker rays emitted by (*) Uranium. She then investigated the properties of pitchblende, isolating two new elements. FTP, identify this winner of two Nobel prizes who named the elements Polonium and Radium, known for her work with her husband Pierre in the field of radiology.

ANSWER: Marie Sklodowska-Curie (also accept "Maria" or "Madame" Curie)

3. Its geologic features include the Torridonian Sandstones and the Dalradian Rocks, and mountain ranges include the Sidlaws, Olchil Hills, Campsie Fells, and Cheviots. The Dee River rises in the Cairngorms and runs parallel to the Clyde, while the Minch separates this area from (*) Skye, the largest of the Hebrides. With tallest peak at Ben Nevis, FTP, identify this constituent of the United Kingdom known for its highlands and cities like Glasgow and Edinburgh.

ANSWER: Scotland

4. This molecule is used to treat water, in which positive charges are able to catch organic sediment, and to improve immune response in crops. The substitution of a hydroxyl group for an acetamine group leads to increased hydrogen bonding and (*) distinguishes this molecule from the similar cellulose, also made up of beta linkages of glucose. Found in fungi and the shells of lobsters, FTP, identify this hard organic polymer responsible for insect exoskeletons.

ANSWER: Chitin

5. One character's dialogue in this opera shifts from "heavenly spirit, rise" to "heavenly spirit, descend," and a key scene occurs as the main characters are overheard by Amonasro, who hides behind a rock. Another scene involves a pledge taken in a (*) temple, actually dedicated to Vulcan but often erroneously identified as a temple of Ra. Centering on Radames and his love for the titular Ethiopian princess, FTP, identify this Verdi opera commissioned by the Khediv of Egypt.

ANSWER: Aida

6. In one chapter of this work, blind pianist Samson D'Arnault gives a moving performance at Mrs. Gardener's Boys home, where Tiny Soderball works, that inspires one character to follow Gaston Cleric and another, Lena Lingard, to open a dress shop. The title character bonds with Widow Stevens after Larry (*) Donovan abandons her and her father kills himself in Blackhawk, Nebraska. Jim Burden narrates, FTP, what novel about the Shimerda family, written by Willa Cather?
ANSWER: My Antonia

7. Higher iterations of it have much higher values, reaching a maximum for atoms with completely filled outer shells, so Helium has the highest value for it. It is strongly negatively correlated with atomic (*) radius, and on the periodic table it tends to increase moving up within a group and right across a period. FTP, identify this quality of an element, defined as the amount of energy required to remove one mole of electrons from one mole of gas atoms.
ANSWER: Ionization Energy or Ionization Potential

8. One ruler of this dynasty allowed farmers to reclaim wastelands free of tax, and it met its downfall after it faced the Eight Banner system created by Nurhaci. It was founded after Shundi faced the Red Turban Rebellion, one of whose leaders included Zhu Yuanzhang, the eventual (*) Hongwu Emperor. Trade with Spain's colonial empire was possible due to naval voyages by Zheng He, and this dynasty proved to be the late under the control of ethnic Chinese. FTP, identify this Chinese dynasty, successor of the Yuan and predecessor of the Manchu, known for its fine porcelain.
ANSWER: Ming

9. The first verse of this song implies that the repeated central action is occurring for the third time, and at its climax the first speaker references Phil Collins's "In the Air Tonight." That speaker waited with his brother Matthew "in the blistering cold," while the song ends with the startling realization "his name was. . . it was you" after the (*) death of the speaker and his girlfriend, played in the video by Dido, who provides the chorus. Performed with Elton John at the Grammys, FTP, identify this Eminem song named for the rapper's obsessed, suicidal fan.
ANSWER: Stan

10. The CNO cycle creates an alpha particle and two of these particles, releasing corresponding gamma rays in the process, while the proton-proton chain results in the release of one of these and a neutrino when deuterium is produced. These spin 1/2 particles were predicted by an equation that is first-order for space and time, the (*) Dirac equation, and they were created by Carl Anderson with a cloud chamber. Used in PET scanners, FTP, identify these antimatter leptons, the antiparticle of the electron.
ANSWER: Positrons

11. In one section of this novel, Mynheer Peeperkorn abruptly announces his impending suicide, while the emergence of the Weimar era prompted the addition of totalitarian Jesuit Leo Naphta, who clashes with the liberal Settembrini. The protagonist falls in love with the cat-like Claudi Chauchat after (*) Dr. Behrens persuades him to extend a visit to his cousin Joachim in a sanatorium. FTP, identify this novel about Hans Castorp's stay at the titular locale, written by Thomas Mann.
ANSWER: The Magic Mountain

12. The price/wage spiral creates a negative cycle that accounts for the “built-in” variety of this quality, also subject to so-called Hedonic Adjustments. Supply shock and increased aggregate demand account for the (*) “cost-push” and “demand-pull” varieties of it, and it is charted against unemployment on the Phillips Curve. FTP, identify this rise in price level relative to purchasing power, which combines with a recession to create stagflation.

ANSWER: Inflation

13. The EMFFI signaled resistance groups before this battle with a transmission of Verlaine's “Song of Autumn, and it coincided with the beginning of Operation Jedburgh. An attempt to overcome a creation of Fritz Todt, it saw a famous ascent up a sheer cliff at Pointe du Hoc. Operation Neptune preceded this (*) assault, which was helped by false intelligence about a landing at Calais. Gold, Sword, Juno, Omaha, and Utah beaches were the target of, FTP, what June 6, 1944 operation in which the allies invaded France, commonly known as D-Day?

ANSWER: Battle (or Landing) of Normandy (accept D-Day before mentioned, accept Operation Overlord)

14. This man influenced Tonnie's with his discussion of family and community in civil society in his *Elements of the Philosophy of Right*, and Adorno undertook “Three Studies” of this man. He coined the term “sublation” or *aufhebung* to describe his best-known theory, espoused in works like *The Science of Logic* and *The (*) Phenomenology of Mind*. Noted for his theory involving thesis, antithesis, and synthesis, FTP, name this German philosopher and developer of the dialectic.

ANSWER: Georg Wilhelm Friedrich Hegel

15. This country produced the literary journals *Western Review* and *Four Winds*, and one native son inspired Dos Passos with his *The Struggle for Life*. That author, Pio Baroja, belonged to a group that produced works like *Solitaries* and *Mist*, the “Generation of '98,” named for a (*) year of this country's defeat. Unamuno, Machado, and Jimenez hail from it, as do the creators of Bernarda Alba and Dulcinea. FTP, identify this European country, home of Garcia Lorca, Lope de Vega, and Cervantes.

ANSWER: Spain

16. This man is usually credited with popularizing the dative case in his language, and he may have had some medical training, as evidenced by his descriptions of what was probably a typhus epidemic. He famously presented the Melian Dialogue about an island resisting a great power and told of the moving Funeral (*) Oration of Pericles. Generally regarded as more objective than his predecessor, Herodotus, identify this Greek historian who composed *The History of the Peloponnesian War*

ANSWER: Thucydides

17. This substance is often combined with acetone or methanol to deactivate pyrophoric substances, and its ability to force sheet metal to rapidly contract makes it popular for car repair. Often coming in small, compact pellets, it sublimates instead of melting, which is why it is used to (*) carbonate drinks. Created by the depressurization of carbon dioxide, FTP, identify this substance used to remove warts, create fog effects, and keep items cool, despite the fact that it contains no frozen water.

ANSWER: Dry Ice (prompt on Carbon Dioxide)

18. The father of Sobek with Neith, he often rode the bow of Ra's barge and fought the serpent Apep. The historical scorpion king had an emblem resembling this god, whose head is often characterized as the “typhonic beast,” theorized to be a composite animal. More famously, this husband of (*) Nephtys gouged out his nephew's eye after killing and chopping up his brother. FTP, identify this evil god of Egyptian mythology who was killed by Horus after he attacked Osiris.

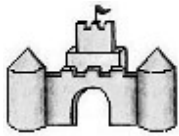
ANSWER: Seth or Setesh or Sutekh or Seteh

19. This author created a series of four works all set on a fictional ship, the Glencairn Plays, which include *The Long Voyage Home* and *Moon of the Caribbees*. He told of Phil Hogan and his daughter Josie in *A Moon for the Misbegotten*, which includes the character of (*) James Tyrone, who appears in his autobiographical play about a dysfunctional, drug-using family. The creator of *Desire Under the Elms*, *Anna Christie*, and *The Iceman Cometh*, FTP, identify this playwright of *Long Day's Journey Into Night*.

ANSWER: Eugene Gladstone O'Neill

20. This painting was famously described by the artist using the phrase “imperialist fury of precision,” and a geometric plane lies in the left background beyond a leafless tree with a single main branch. The subject of a “disintegration” study by the artist, one central object is thought to be a (*) twice-reflected self portrait while another is covered by ants. Showing several melting time pieces, FTP, identify this surrealist masterpiece of Salvador Dali.

ANSWER: The Persistence of Memory



DACQ

Dynasty Academic Competition Questions

September 2007
Packet 3:
Bonuses

1. Bonus: Identify the following atomic models named after prominent physicists, FTPE:

[10] Overthrowing J.J. Thomson's plum pudding model, his model was based on the results of the Geiger-Marsden experiment involving alpha particles and gold foil. It included the addition of the very tiny, highly charged nucleus in the center of the atom.

ANSWER: **Ernest Rutherford Model**

[10] His extension of the Rutherford model incorporated quantum mechanics, confining electrons to circular orbits around the nucleus.

ANSWER: **Niels Bohr Model**

[10] His mathematical model of the atom described electrons as waveforms instead of point particles, leading to Heisenberg's uncertainty principle.

ANSWER: **Erwin Schrodinger Model**

2. Bonus: Answer these questions about the Nobel Peace Prize, FTPE:

[10] The first winner of the prize was this Swiss activist, whose horror after witnessing the Battle of Solferino led him to found the Red Cross.

ANSWER: **Jean Henri Dunant**

[10] The 2005 prize was shared by the International Atomic Energy Agency, based in this city, also the home of OPEC.

ANSWER: **Vienna, Austria**

[10] This former Georgia politician won in 2002, due in large part to his work with Habitat for Humanity.

ANSWER: **James Earl "Jimmy" Carter**

3. Bonus: This author of *Dymer* and *Spirits in Bondage* wrote *The Space Trilogy*, but found greater success with another fictional series. FTPE:

[10] Identify this creator of the Pevensie children, a lion named Aslan, and the fictional realm of Narnia.

ANSWER: **Clive Staples Lewis**

[10] The damnation of "The Patient," who dies during an air raid, is the subject of this Lewis piece about the namesake senior demon's letters to his nephew Wormwood.

ANSWER: **The Screwtape Letters**

[10] The title of Lewis's *Pilgrim's Regress*, is a play on *Pilgrim's Progress*, a work by this author of *The Life and Death of Mr. Badman* and *Grace Abounding in the Chief of Sinners*.

ANSWER: **John Bunyan**

4. Bonus: It was first developed using a formula that divided 2,880 by 120. FTPE:

[10] Identify this fixture of organized basketball whose inspiration is cited as Howard Hobson, which begins at 24 seconds in the NBA and at 35 seconds in Men's College basketball.

ANSWER: **Shot Clock** (accept equivalents like **Shooting Timer**, etc.)

[10] Danny Biasone first implemented a shot clock during his time as owner of the "Nationals" of this location, whose namesake college team won the Men's championship in 2003 over Kansas thanks in large part to Carmelo Anthony.

ANSWER: **Syracuse**

[10] The Syracuse Nationals would go on to become this team, who recently received two first-round picks, Joe Smith, and Andre Miller from the Nuggets and got rid of a ball-hogging lunatic from Georgetown.

ANSWER: **Philadelphia 76ers** (either name)

5. Bonus: Answer the following questions about the founding of Athens, FTPE:

[10] Athens's legendary first king Secrops, who was notably half snake, judged a competition between Athena and this other Greek god to be the city's patron. Athena won after this figure offered some disgusting saltwater to the city.

ANSWER: **Poseidon**

[10] Athena's much more appetizing gift was this kind of plant life, which was chosen since it provided food, wood, and a certain other substance.

ANSWER: **Olive Tree**

[10] After Athens transitioned from rule by Kings, its first major democratic reforms occurred under the rule of this man, called "the lawgiver," whose cousin Peisistratus ruined much of his work.

ANSWER: **Solon**

6. Bonus: This process is enacted by RNA Polymerase, and consists of initiation, elongation, and termination. FTPE:

[10] Identify this process that precedes translation, in which DNA is copied onto a corresponding RNA molecule.

ANSWER: **Transcription**

[10] Though transcription occurs in the cytoplasm in prokaryotes, eukaryotic cells perform transcription inside this organelle.

ANSWER: **Nucleus**

[10] One of the factors regulating transcription is the structure of these proteins, formed by the union of two dimers and a tetramer, around which spools of DNA are wound.

ANSWER: **Histones**

7. Bonus: Answer these questions about Caribbean literature, FTPE:

[10] This poet from St. Lucia has published works like *The Star-Apple Kingdom*, *Midsummer*, and *Omeros*, which helped win him the 1992 Nobel Prize for Literature.

ANSWER: **Derek Walcott**

[10] *Omeros*, Walcott's best-known work, is a Caribbean adaptation of this Homer work about the Trojan War.

ANSWER: **The Iliad**

[10] In 1997, Walcott collaborated with this man on the musical play *The Capeman*, who recorded songs like "The Boxer" and "Mrs. Robinson" and split from his long-time collaborator in 1971.

ANSWER: **Paul Simon**

8. Bonus: Identify these locations from Greek mythology, FTPE:

[10] The Asphodel, Lethe, and Styx run through this location, the Greek underworld presided over by a namesake god.

ANSWER: **Hades**

[10] This gloomy pit of Hades is home to Ixion, Tantalus, and many Titans.

ANSWER: **Tartarus**

[10] The Black Sea is often cited as the home of this location, the final resting place for virtuous and heroic souls.

ANSWER: **Elysium or the Elysian Fields or Elysion**

9. Bonus: The Democratic convention before this election saw a near-brawl between “fire-eaters” and moderates over slavery, and ended with two different nominated candidates. FTPE:

[10] Identify this election that also involved the candidacy of John Bell and the victory of the eventual 16th president.

ANSWER: **Election of 1860**

[10] This future confederate Secretary of War and winner of the Battle of New Market carried every southern state except Tennessee, but couldn't overtake Lincoln due to the unmitigated disaster that was the Democratic Party.

ANSWER: **John Caleb Breckenridge**

[10] John Bell amusingly carried three states as a candidate of the Constitutional Union party, which formed out of a partnership between the dissolve Whigs and members of this racist, xenophobic party once known as the American party.

ANSWER: **Know-Nothing Party**

10. Bonus: Demonstrate strong Albanian knowledge and answer these questions about the great country of Albania, FTPE:

[10] This city on the Ishm River is Albania's capital.

ANSWER: **Tirana**

[10] Albania's northern coast is on this arm of the Mediterranean to the east of Italy, the home of Brac Island.

ANSWER: **Adriatic Sea**

[10] Since nobody in Albania knew what “president” meant anyway, this former chief executive became King of Albania in 1928, though control of his country would soon pass to Italy and later to communists under Enver Hoxha.

ANSWER: **King Zog I, Skanderbeg III (accept Ahmet Muhtar Bey Zogolli, I guess. . .)**

11. Bonus: It appears at the beginning of a piece of music, immediately following the key signature. FTPE:

[10] What is this notation consisting of two numbers? The top number indicates the how many beats per measure, while the bottom indicates which note value gets one beat.

ANSWER: **Time Signature (accept “meter signature”)**

[10] Sometimes called “alla breve” or “cut time,” this time signature is frequently annotated by a letter C with a vertical line through it.

ANSWER: **2/2 time (“two-two”)**

[10] This term is used to describe time signatures in which the measure is divided into uneven parts, or into three or more parts. This causes subaccents within each measure, creating beats.

ANSWER: **Compound Time Signature (accept “compound meter signature”)**

12. Bonus: This author of *Prospects of a Golden* and *Easter Island* told of Bud Korpenning and George Baldwin in *Manhattan Transfer*. FTPE:

[10] Identify this author who collected the works *The 42nd Parallel*, *Nineteen Nineteen*, and *The Big Money* into a famous trilogy.

ANSWER: **John Dos Passos**

[10] This Dos Passos trilogy, which contains the aforementioned works, switches between multiple narrative modes and includes newsreels about famous figures of the early twentieth century.

ANSWER: **The U.S.A. Trilogy**

[10] One of Dos Passos's first novels told the story of three of these. Jaroslav Hacek told of a "good" one named Svejek, while a more famous "good" one, Edward Ashburnam, titles a Ford Maddox Ford novel.

ANSWER: **Soldiers**

13. Bonus: It is the area of physical chemistry that deals with the rates of chemical reactions. FTPE:

[10] Identify this field whose name comes from the Greek for "movement," referring to the effects of molecule's motions on reaction rates.

ANSWER: **Chemical or Reaction Kinetics**

[10] This law, based on the work of Guldberg and Waage, relates the rate of an elementary reaction to the concentrations of molecules involved in the reaction.

ANSWER: **Law of Mass Action**

[10] Examples of these compounds include Lindlar's, Wilkinson's, Raney Nickel, and many pure metals. This term refers to any substance not consumed in a reaction that increases its rate.

ANSWER: **Catalyst**

14. Bonus: Convert the following numbers to binary, FTPE.

[10] 13, or D in hexadecimal.

ANSWER: **1101**

[10] 21

ANSWER: **10101**

[10] 129

ANSWER: **1000001 (two 1s separated by six 0s)**

15. Bonus: Identify the following internal security organizations, FTPE:

[10] This heir to the Cheka and NKVD came together following the ousting of Beria. It conducted almost every intelligence and security operation of the Soviet Union from 1954 to 1991.

ANSWER: **Komitet Gosudarstvennoy Bezopasnosti (or Committee for State Security)**

[10] This suboffice of the SS and SD was first headed by Rudolf Diels. It was the official secret police organization for Nazi Germany.

ANSWER: **Gestapo or Geheime Staatspolizei or Secret State Police**

[10] "Shiled which shall not be seen" is the motto of this internal security service of Israel, which collaborates with Aman and Mossad. It is the namesake of a torture technique alleged to have been used against numerous Palestinians.

ANSWER: **Shabak or Shin Bet or Sherut Bitahon Klali or ISA or GSS**

16. Bonus: Identify these artists who depicted some unfortunate events in the life of Jesus Christ, FTPE:

[10] This painter of *The Lute Player*, *The Calling of Saint Matthew*, and *The Conversion of Saint Paul* depicted the burial of Christ in *The Entombment*.

ANSWER: **Caravaggio**

[10] This man's *Pieta* is the only work he ever signed, doing so with a blunt object in the middle of the night after hearing a rumor that a rival created the sculpture. He's better known for a marble *David* and for a painting project in the Sistine Chapel.

ANSWER: **Michaelangelo Buonarroti (either name)**

[10] This creator of the San Luca and San Zeno altarpieces went historical with his *Triumph of Caesar*, but is better known for a series of works depicting Saint Sebastian and for his masterwork, *The Dead Christ*.

ANSWER: **Andrea Mantegna**

17. Bonus: He believed civilizations passed through three stages, which include the Theological and Metaphysical. FTPE:

[10] Identify this French thinker who coined the term "sociology."

ANSWER: **Auguste Comte**

[10] Comte articulated this philosophy which emulates the scientific method and states that true knowledge must be proven by direct scientific observation.

ANSWER: **Positivism**

[10] Comte created a "Positivist Calendar" in which the tenth month was named for this author of *The Phoenix and the Turtle*, *Cymbeline*, and *King Lear*.

ANSWER: **William Shakespeare**

18. Bonus: Identify these English dramatists, FTPE:

[10] This creator of *Nano*, *Bonario*, and *Volpone* is known for works like *The Magnetic Lady*, *The Case is Altered*, and *The Alchemist*. He was a contemporary of Shakespeare and once killed a man during a duel.

ANSWER: **Benjamin Jonson**

[10] Sharing his name with the director of *Stagecoach*, this writer created *The Sun's Darling*, *Perkin Warbeck*, and told of Giovanni's frightening lust for his sister Annabella in *'Tis Pity She's a Whore*.

ANSWER: **John Ford**

[10] This author of *Elegy on the Death of a Mad Dog*, *The Deserted Village*, and *The Vicar of Wakefield* told of Kate Hardcastle in *She Stoops to Conquer*.

ANSWER: **Oliver Goldsmith**

19. Bonus: Identify the South American country given some of its leaders, FTPE:

[10] Getulio Vargas, Fernando Cardoso, Luiz da Silva.

ANSWER: **Brazil**

[10] Fernando de la Rúa, Nestor Kirchner, Juan Peron.

ANSWER: **Argentina**

[10] Salvador Allende, Augusto Pinochet, Michelle Bachelet.

ANSWER: **Chile**

20. Bonus: Answer these questions about Voodoo, FTPE:

[10] These spirits exist as a medium between the Creator and humanity, and can be invoked by a *Bokor*, or sorcerer.

ANSWER: **Loas**

[10] Haitian law actually officially forbids the creation of these entities, which are usually created after a powder is sprinkled on feet. They perform menial tasks and usually don't eat brains.

ANSWERS: **Zombies or Nzambi**

[10] Concepts like *gris-gris* talismans and Voodoo Dolls were largely introduced to the United States in this specific state by figures like Marie Laveau.

ANSWER: **Louisiana**