

CARDINAL CLASSIC XII: Beware the Esker
Stanford University
February 2, 2002

Packet by Florida Atlantic

Toss-Up Questions

1. She ranked the narrator's gift of a 900-year-old name with anybody's gift, and she was equally pleased by his favor at her breast (*) or the bough of cherries some officious fool broke in the orchard for her. Painted by Fra Pandolf, her image is near that of Neptune taming a seahorse. FTP, name this title character of a Robert Browning poem, looking as if she were alive in a painting on the wall.

Answer: My Last Duchess

2. In 1960, the Mossbauer effect was used for the first earthbound proof of this theory. Forty-one years earlier, the earliest tests at Principe Island and Sobral were organized by Arthur Eddington, (*) and a slight deflection of starlight was observed during a solar eclipse. More recent proof comes from multiple images of a quasar, caused by bending of light around a galaxy. FTP, name this theory of Einstein first published in 1915.

Answer: general theory of relativity

3. A Hartford lawyer, he was a member of the Continental Congress during the American Revolution. His great service was at the Constitutional Convention, where he and Roger Sherman (*) advanced the Connecticut Compromise, and he was also responsible for the term "United States" in the Constitution. FTP, name this politician, the third Chief Justice of the U.S.

Answer: Oliver Ellsworth

4. Her first ballet, *Black Ritual*, was one of the first to use black dancers. She acted as stage director and choreographer while dancing in (*) *Allegro*, but it was less successful than her other Rodgers and Hammerstein pieces. She choreographed such musicals as *One Touch of Venus* and *Fall River Legend*, but she is better known for *Rodeo* and *Oklahoma!* FTP, name this choreographer and dancer, the niece of director Cecil.

Answer: Agnes de Mille

5. The child is not yet capable of abstract thought, but does possess classification skills and can evaluate relationships between subsets. Conversation skills surface, and a measure of logical reasoning replaces (*) the intuitive reasoning of the preoperational stage. Typically occurring between ages 7 and 11, FTP, name this third stage of cognitive development proposed by Jean Piaget.

Answer: concrete operational

6. The title character explains that the *San Dominick* tried to round Cape Horn and hit bad weather, followed by disease which killed most of the Spaniards and many of the Africans (*) aboard. Captain Delano notices that the servant Babo seems rather forward, but only after the man leaps aboard his boat does the Captain realize that a mutiny had taken place. FTP, name this short story by Herman Melville.

Answer: Benito Cereno

7. Methyl acetoacetate produces 3 spikes and acetic acid produces 2, while an isopropyl group produces a 7-spike sequence because of spin-spin splitting. (*) Unlike IR spectroscopy, this technique produces narrow spikes, indicating how many different "types" of protons are present. FTP, name this type of spectroscopy similar to a medical imaging technique.

Answer: NMR or nuclear magnetic resonance (prompt on MRI)

8. He was shot down in late 1915, but after the death of Manfred von Richtofen, (*) he succeeded to command Richtofen's squadron. He became Reichstag president in 1932. He also created the Gestapo and ordered construction of the first concentration camps, but he committed suicide in 1946 before he could be hanged. FTP, identify this Nazi best known for heading the Luftwaffe.

Answer: Hermann Goering

9. His brother-in-law is slain by Ascanius. He escapes his enemies by leaping into the (*) Tiber and floating back to his men, and he kills the Trojan Pallas after rescuing Lausus. Juno leaves him out at sea to protect him from the rage of Aeneas, and his Latin army is crushed. FTP, name this king of the Rutulians, slain by Aeneas at the close of Virgil's *Aeneid*.

Answer: Turnus

10. This team's inaugural season was 1993-1994, and its early draft picks included Rob Niedermayer and Ed Jovanovski. In 1996, Scott Mellanby killed a (*) rat in the locker room and scored two goals that night, leading to a unique celebration during its run to the 1996 Stanley Cup Finals, led by goalie John Vanbeisbrouck. FTP, name this team playing in the National Car Rental Center, led by Pavel Bure.

Answer: Florida Panthers (accept either)

11. After finding a note from Norberg indicating that Mariana is a kept woman, he renounces poetry and drama (*) to devote himself to his father's business. He marries the Amazon woman Natalia after Mignon's death. These experiences serve as his apprenticeship for becoming a critic of art and life. FTP, name this title character of a 1796 novel by Goethe, the sequel to which involved his travels.

Answer: Wilhelm Meister

12. After the original substances are mixed as beams of molecules, an ultrafast laser injects two pulses, known as the pump and probe pulses. Varying the time between the two beams, down to the range of (*) 10 to the minus 15th seconds, shows how fast a chemical reaction takes place. FTP, this describes what recent procedure, for which Ahmed Zewail won the 1999 Nobel Prize for Chemistry?

Answer: femtosecond spectroscopy or femtochemistry (prompt on early Zewail)

13. This treaty clearly defined the western boundary of the Louisiana Purchase for the first time. All claims to the Oregon country (*) were ceded to the United States and in return the U.S. agreed to cede whatever title to Texas it had acquired to Spain. Fully defining the western border of the U.S., FTP, identify this 1821 treaty signed with Spain that ceded the Floridas to the U.S.

Answer: Adams-Onís Treaty

14. Verrocchio's 1470 version has a sword in its right hand and a large head at its feet. (*) In Bernini's 1623 version, the body is twisted and muscles flexed, in the process of swinging the weapon, and has a bag on the right hip. Donatello's 1408 bronze version shows a slender boyish figure that has slain his giant enemy. FTP, identify this common sculpture, a 1504 version of which was produced by Michelangelo.

Answer: David

15. After he slew a Taliban fighter who challenged him, the man's brother returned the next day and lobbed a grenade at him, causing lameness and the loss of an eye. (*) Arriving from West Germany 38 years ago, he had endured endless taunts in recent years by visitors to the Kabul Zoo. FTP, name this lion, whose name means "Coral" in Pashto, and who died on January 26.

Answer: Marjan

16. His testimony in the Scrope-Grosvenor trial is the only existing scrap of autobiography of him, other than passages in works like (*) *The House of Fame*. Most of his great poetry was written from 1370 to 1387, including *The Parliament of Fowls* and *Troilus and Cresidye*. FTP, name this author of *The Book of the Duchess* and *The Canterbury Tales*.

Answer: Geoffrey Chaucer

17. Its name is derived from Latin meaning “little red”, and it was isolated in 1962 by Parkman and Weller. (*) Classified as a togavirus, it is most closely related to group A arboviruses such as Equine encephalitis. Research to develop a vaccine was spurred by a 1964 epidemic and the related rise in birth deformities. FTP, name this disease which has a European country’s name associated with it.

Answer: German measles or rubella (do not accept rubeola)

18. His dissent with his brother was caused by the dictum of joint rulership issued by his father, Huayna Capac. (*) In 1532, this man defeated his brother Huáscar and took control of the empire, though he’d lose it to the Spanish that same year. Dying at the hands of Francisco Pizarro, FTP, identify this last Inca ruler.

Answer: Atahualpa

19. The concrete of its rotunda uses heavy aggregate, while that of the upper part of its dome uses pumice. It once had a portico whose bronze roof beams were melted down by the Barberinis, but its bronze doors remain. (*) Its coffered ceiling receives natural light from a 27-foot oculus in the middle of the 141-foot dome. FTP, name this structure, dedicated and probably designed by Hadrian, a temple to all the gods.

Answer: Pantheon

20. Only 2 of the 5 members are alive and free today, one being Bobby Whitlock. Bassist Carl Radle (*) died of cancer, drummer Jim Gordon wound up in prison, and slide guitarist Duane Allman died in a motorcycle crash in 1971. The lead guitarist’s love for Patti Harrison was the inspiration behind their lone studio album. FTP, name this short-lived band, fronted by Eric Clapton, which recorded the *Layla* album.

Answer: Derek and the Dominoes

21. Book II details the narrator’s sixteenth year, including a famous episode where he and his friends rob a pear tree simply because it is forbidden. In Book III, the narrator reads Cicero’s *Hortensius* and becomes involved with a sect founded by (*) Mani. Book VIII recounts his conversion to Christianity, the religion of his mother Monica. Written from 397-401, FTP, identify this spiritual autobiography of Saint Augustine.

Answer: Confessions

22. While tilling a potato field back and forth with a horse-drawn harrow, he realized that an electron beam could scan images the same way, line by line. His dissector tube (*) divides an image into particles whose light values, when transmitted, can be restored to replicate the original image. FTP, name this early television inventor who produced the first all-electronic television picture ever transmitted.

Answer: Philo Taylor Farnsworth

23. By the end of 1960 the Congo was divided into four quasi-independent parts, and with civil war looming, this man became involved in the situation when the United (*) Nations initiated a vigorous peacekeeping role in the area. FTP, name this man succeeded by U Thant, the U.N. Secretary General who died en route to the Congo when his plane crashed in September 1961.

Answer: Dag Hammar skjöld

24. Its last two parts are concerned with the Christian Commonwealth and the Kingdom of Darkness. (*) It argues that men are created equal, in that their similar desires lead to a natural state of war. Also referring to life as “nasty, brutish, and short,” FTP, name this Thomas Hobbes work, the title of which refers to the enormity of the state.

Answer: Leviathan

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Bonus Questions

1. Give these psychoanalytic terms, all of which begin with "A" FTPE.

- a) The hypothesized inborn predispositions to behave and give meanings to experience in ways associated with the feminine.

Answer: anima (do not accept animus)

- b) The process of remembering a repressed experience and experience the strong feelings associated with it.

Answer: abreaction

- c) A class of disorder characterized by abnormally intense alterations of moods of depression and/or mania.

Answer: affective disorder

2. Cate Blanchett is in a bunch of new films. Name some FTPE.

- a) She plays Galadriel in this trilogy of films made in New Zealand.

Answer: *The Lord of the Rings*

- b) She stars opposite Kevin Spacey in this movie adaptation of an Annie Proulx novel.

Answer: *The Shipping News*

- c) She plays a British woman who joins the French Resistance in World War II in this movie.

Answer: *Charlotte Gray*

3. Name these people related to author Virginia Woolf FTPE.

- a) Her father, a well-known scholar of Victorian literature.

Answer: Leslie Stephen

- b) Her brother-in-law, a well-known art scholar who married Woolf's sister Vanessa.

Answer: Clive Bell

- c) The full name of her husband, a novelist and member of the Fabian Society who founded Hogarth Press.

Answer: Leonard Woolf

4. Answer the following about a unicellular protozoan FTPE.

- a) This type of protozoan has no definite shape.

Answer: amoeba (accept amoeboid protozoa)

- b) This is the footlike extension that an amoeba uses for locomotion.

Answer: pseudopodia

- c) Some members of the group Amoebozoa produce calcified shells, known as what?

Answer: tests

5. Answer these questions about a naval affair in 1807 FTPE.

- a) Name the U.S. warship stopped by the *Leopard*; four of its men were “impressed” into service and several more killed by gunfire.

Answer: U.S.S. Chesapeake

- b) Name the captain of the *Chesapeake*, court-martialed for negligence in 1808.

Answer: James Barron

- c) This hero of the war against the Barbary Pirates and the War of 1812 was killed by Barron in an 1820 duel.

Answer: Stephen Decatur

6. Identify these painting media FTPE.

- a) A type of watercolor paint made opaque by mixing pigments with a gum binder.

Answer: gouache

- b) Often used in old religious icons, the medium for the powdered color is hot wax.

Answer: encaustic

- c) Powdered color is mixed with egg white and yolk, then thinned with water and applied to gesso.

Answer: tempera

7. Name these past winners of Grammys for Album of the Year FTPE.

- a) He won a 1972 Grammy for *The Concert for Bangladesh*, which he organized.

Answer: George Harrison

- b) He won 3 Grammys in 4 years with such albums as *Innervisions* and *Songs in the Key of Life*.

Answer: Stevie Wonder (or Steveland Morris)

- c) Two people have won the award for recordings of Unplugged performances on MTV. Name them both FTPE.

Answer: Eric Clapton and Tony Bennett

8. Name these authors from the American Colonial period F15PE.

- a) Kidnapped from Lancaster, Massachusetts, she spent 11 weeks as a captive during King Philip's War, recounting her ordeal in a famous narrative.

Answer: Mary Rowlandson

- b) The rarest of the rare, a Puritan with a sense of humor, his diary recounts his pursuit of the widow Katharine Winthrop. He was also the only judge at the Salem Witch Trials to later issue a statement of wrongdoing.

Answer: Samuel Sewell

9. Identify these quantum numbers FTPE.

- a) In a hydrogen atom, the energy depends only on this quantum number, whose value is a natural number.

Answer: n or principal quantum number

- b) Its possible values for a given value of n are zero to n-1.

Answer: l or orbital quantum number

- c) For an atomic electron, its value is always 1/2.

Answer: s or spin

10. Name these Romans FTPE.

- a) This Roman agrarian reformer tried to redistribute land as tribune, but was killed in 133 BCE as was his brother 12 years later.

Answer: Tiberius Gracchus

- b) This general was dictator of Rome from 82-79 BCE.

Answer: Lucius Cornelius Sulla

- b) In 63 BCE, this member of the First Triumvirate defeated Mithridates of Pontus and annexed Syria.

Answer: Pompey the Great, or Gnaeus Pompeius Magnus

11. Name the philosophers famous for writing these lines FTSNOP.

- a) (5 points) "The proletarians have nothing to lose but their chains."

Answer: Karl Marx

- b) (10 points) "What experience and history teach us is this – that people and governments have never learned anything from history, or acted on principles deduced from it."

Answer: Georg Hegel

- c) (15 points) "God is not willing to do everything, and thus take away our free will and that share of

glory which belongs to us.”

Answer: Niccolo Machiavelli

12. Name these Russian pianist/composers FTPE.

- a) He is best known for the opera *Love for Three Oranges* and the orchestral piece *Peter and the Wolf*.

Answer: Sergei Prokofiev

- b) The founder of the Conservatory in St. Petersburg, he composed several *Musical Portraits* and the symphony *The Ocean*.

Answer: Anton Rubenstein

- c) Emigrating to the U.S. at age 17, he wrote the tone poem *Isle of the Dead* and three challenging piano concertos.

Answer: Sergei Rachmaninoff

13. Name these Chinese novels from the Ming dynasty F15PE.

- a) Attributed to Lo-Koan Chung and set during the Wei, Shu, and Wu periods, it features the wise tactician Zhuge Liang and the usurper Dong Zhuo.

Answer: Romance of the Three Kingdoms or Sanguo zhi yanyi or San-kuo chih yen-I

- b) Published in 1617, it recounts the fall of Hsi-men Ch'ing as he pursues his sexual and political needs; its open sexuality has led to bans for pornography.

Answer: The Plum in the Golden Vase or Chin P'ing Mei

14. Answer the following about rules involving double bonds in organic chemistry F15PE.

- a) According to this rule, a stable bridged bicyclic compound cannot have a double bond at a bridgehead carbon unless one ring has at least 8 carbons.

Answer: Bredt's rule

- b) The Satzkyeff rule, which says that an elimination usually gives the most stable product, applied to this class of compounds.

Answer: alkenes

15. Name these figures from Russia's Time of Troubles FTPE.

- a) It began around 1604, late in the reign of what boyar, chosen czar in 1598?

Answer: Boris Gudonov

- b) After the death of a false Dmitri, this man reigned as a weak ruler from 1606 to 1610.

Answer: Vasily IV or Prince Vasily Shuisky

- c) The period ended with the reign of what first Romanov czar?

Answer: Michael or Mikhail Romanov

16. Name these characters from Camus's *The Stranger* FTPE.

- a) The protagonist, he kills an Arab on the beach and is sentenced to the guillotine.

Answer: Mersault

- c) Mersault is drawn into the conflict with the Arabs because of this neighbor.

Answer: Raymond

- d) She is the young woman who loves and intends to marry Mersault.

Answer: Marie Cardona (accept either)

17. Name these ocean currents FTSNOP.

- a) (5 points) It brings tropical waters north along the U.S. east coast and across the North Atlantic.

Answer: Gulf Stream

- b) (10 points) This cold current flows north along the west coast of South America. Disruptions in it are associated with El Niño.

Answer: Humboldt current

- c) (15 points) This warm current runs along the horn of Africa, and it reverses direction every winter.

Answer: Somali current

18. Name these recent figures in the politics of Pakistan FTPE.

- a) He is the current president of Pakistan.

Answer: Pervez Musharraf

- b) In 1988 this woman became the first female Prime Minister of a Muslim nation.

Answer: Benazir Bhutto

- c) This president of Pakistan from 1993-97 replaced Bhutto in 1996, and he formed the Millat Party in 1998.

Answer: Farooq Ahmad Khan Leghari

19. Name these religious holidays FTPE.

- a) The Jewish Feast of Lots, it celebrates Esther's actions to save the Persian Jews.

Answer: Purim

- b) A 40-day period of fasting in western Christian churches, it begins on Ash Wednesday.

Answer: Lent

- c) This December 8th Roman Catholic feast honors the Virgin Mary's freedom from sin.

Answer: Feast of the Immaculate Conception

20. Identify these guys whose names make the packet authors giggle FTPE. Hint: they're all named Dick.

- a) This Hall of Famer was middle linebacker for the Bears from 1965-73.

Answer: Dick Butkus

- b) NASCAR's Rookie of the Year in 1989, he never won a Winston Cup race, but *Sportscenter* always told you where he finished.

Answer: Dick Trickle

- c) This holder of a PhD in nuclear physics from Harvard became famous in 1998 for his plan to clone a human being.

Answer: (Richard) Dick Seed

21. Identify these characters from Sinclair Lewis' *Babbitt* FTPE.

- a) Babbitt's college roommate and closest friend, he shoots his wife Zilla over an argument.

Answer: Paul Riesling (accept either name)

- b) This attractive widow has an affair with Babbitt and introduces him to her Bohemian friends known as "The Bunch."

Answer: Tanis Judique (accept either name)

- c) She is Babbitt's dull but devoted wife. Her illness prompts Babbitt to return to his role as a family man.

Answer: Myra Babbitt

22. Identify the following about a certain technique used in biotechnology FTPE.

- a) Developed by Kary Mullis, this method is used to create many copies of DNA fragments.

Answer: PCR or polymerase chain reaction

- b) PCR depends on the activity of this enzyme, a DNA polymerase obtained from a particular organism.

Answer: taq DNA polymerase or thermus aquaticus

- c) This specific type of PCR is the most sensitive method used for RNA detection and quantification.

Answer: reverse transcription PCR or RT-PCR

23. Name the nation from leaders past and present, 30-20-10.

- a) (30 points) Manuel Montt and Carlos Ibanez del Campo
b) (20 points) Eduardo Frei Montalva, Patricio Aylwin, and Ricardo Lagos
c) (10 points) Salvador Allende and Augusto Pinochet

Answer: Chile

24. Identify these children of Queen Margawse, or Morgana, FTPE.

- a) This is the knight who King Arthur fights as his mortal enemy.

Answer: Mordred

- b) A famous tale is told of this knight as he fights the Green Knight.

Answer: Gawain

- c) This knight arranged for Lancelot and Guinevere to be caught in their affair. He is later killed by Lancelot.

Answer: Agravain