

2/4/02
4/25/05

Beaver Bonspiel IX Round 16

Packet by Michigan (Ezequiel Berdichevsky, Matt Lafer, Paul Litvak, and Leo Wolpert)

Tossups

1. Structured around the four seasons of one fateful year, this novel features interludes using the language of the Dick-and-Jane Readers, and begins by recounting how arson forced the protagonist to move into the MacTeer household. After the main character hears a fight between her parents, a brutal rape occurs, and the protagonist goes in search of the title object at Soaphead Church's. For ten points, what novel focusing on Pecola Breedlove's attempt to change her physical appearance was the first by Toni Morrison?

Answer: *The Bluest Eye*

2. At the subatomic level, it is the energy with which a particle can change its quantum state without disrupting equilibrium with its surroundings. It is equivalent to the partial molar Gibbs free energy, and in the context of subatomic particles, it is called the Fermi energy. For ten points, name this quantity which is non-linear for a mixture and linear for a free substance, symbolized by the Greek letter mu, which is the measure of chemical stability of a system.

Answer: chemical potential (accept "Fermi Energy" before it is mentioned)

3. This 1792 document is dedicated to Bishop Talleyrand, and its 13 sections include "Parental Affection" and "On National Education." Prevailing notions and roles like "modesty" and "pity" are discussed, and it ends with a listing of follies that emerge from "the tyranny of man." This is followed by the declaration that when the neglected sex will share opportunity, she will emulate the virtuous life. For ten points, identify this revolutionary feminist tract written by Mary Wollstonecraft.

Answer: "A Vindication of the Rights of Woman"

4. Located southwest of Toulouse, it is situated at the foot of the Pyrenees on the bank of the torrent, the Gave de Pau. During the Hundred Years War, it was captured from the English, and from the reign of Louis XIV until the beginning of the 1800s its castle was used as a state prison. Its contemporary importance, however, dates from 1858, when, at the nearby Massabielle grotto between February 11 and July 16, 14-year-old girl Bernadette Soubirous had numerous visions which were certified as authentic by the Pope in 1862. FTP, name this French town which has since received millions of annual pilgrims.

Answer: Lourdes

5. One figure in an orange tunic stands with his back turned and his arms lifted to the side in the center of the painting, but also appears on the far right holding a cane. In the center, the two main figures both point to the viewer's left, where we see Peter crouched at the shore of Lake Genezaret handling the fish which Jesus instructed him to catch. Including three different moments of the same story in one fresco, FTP, what is this Masaccio painting in which Peter pays the titular shekel to a tax collector?

Answer: *The Tribute Money*

6. Written in 1921 shortly after the author's first play *The Robber*, this work ends with the line, "Adam, Eve," underscoring the destruction of the human race that had been wrought when Helena Glory, President of the Humanitarian League, persuaded Dr. Gall to give the title characters feelings. Soon only the mason Alquist is left, and he is pressed into service to insure the survival of the mechanized beings. For ten points, identify this dystopic drama that introduced the word "robot," written by Karel Capek.

Answer: R.U.R.: Rossum's Universal Robots

7. His best friend is fellow lawyer Foggy Nelson, and his wife Karen is a recovering drug addict. Though this comic book character's most interesting enemy may be the schizophrenic Typhoid Mary, he has also tangled with the Punisher and Bullseye --characters that may appear alongside Ben Affleck when he portrays the blind Matt Murdock on film in the near future. For ten points, identify this Marvel hero who sports a red suit with horns on top and is known as "the man without fear."

Answer: Daredevil

8. His tomb at Santarem was rediscovered in 1848 and is now a national shrine. He later had a mishap in which he lost four ships to a storm around the Cape of Good Hope, one of which was ironically captained by Bartolomeu Dias. But he also had great success for Manuel I, expanding his empire many times over when he claimed what he thought was an island for the Portuguese Empire in 1500. For ten points, name this navigator, a rival of Vasco da Gama, and the discoverer of Brazil.

Answer: Pedro Alvares Cabral

9. Recently observed ones include "T Pyxidis" and "Aquilae." The X-ray type probably results from material spiraling into a black hole, while the classical type occurs when a red giant expands into the gravitational domain of a companion white dwarf, causing the dwarf to attract material from the giant's outer atmosphere and resulting in a massive nuclear explosion. FTP, name this astronomical event which does not involve a star's core and is hence not termed "super," and whose name means "new."

Answer: nova

10. It mandated that Jews and Muslims must wear dress to differentiate them from Christians, and also forbade members of the priesthood from performing any kind of surgery. It established the hierarchy of patriarchs following the pope, and it famously condemned the doctrines of Joachim of Fiore. Yet it is best known for its famous declaration of "Omnis utriusque sexus" which established the procedure of confession and proclaimed the doctrine of transubstantiation. For ten points, identify this 1215 church council, convened by Innocent III.

Answer: Fourth Lateran Council

11. This literary name identifies the title character of a work in six cantos, whose action takes place in and around Loch Katrine and contains the ballad "Alice Brand." In that work the huntsman knight who woos Ellen Douglas turns out to be King James V. This name also describes a woman who is beheaded by Balin, and in later stories becomes the seducer of Merlin. For ten points, identify this name of a Sir Walter Scott work and an Arthurian figure known variously as Nimue or Vivian, who is famous for giving Excalibur away from her underwater grotto.

Answer: The Lady of the Lake

12. This term is used analogously in programming to denote the inclusion of blocks of code that serve little or no purpose in a computer program. Richard Feynman applied the term to the practices of scientists who are fixated on getting a specific result. The historical phenomenon was first noted by anthropologist Peter Lawrence, and it appears as a messianic movement that incorporates many Christian elements in such places as the Vanatu and Tanna islands in Melanesia. For ten points, identify these quasi-religions that involve the worship of Western goods by Pacific islanders.

Answer: Cargo Cults

13. He incorporated themes from his *The Wand of Youth* in the incidental music to Algernon Blackwood's *Starlight Express*. Though he worked for a time as a conductor for the Worcester lunatic asylum, his religious choral works like *The Kingdom*, *The Apostles*, and *The Dream of Gerontius* made him famous. For ten points, identify this British composer most well known for the mysterious 1898 *Enigma Variations* and for the *Pomp and Circumstance* march.

Answer: Edward Elgar

14. Originally a southern counterpart to the administrative unit of Wawat, its culture rose to prominence under kings like Piankhi and his father Kashta. Soon the Assyrians challenged its power, and the subjects retreated to the first capital of Napata where it retained local influence. This kingdom was finally defeated after the second capital, Meroe, was sacked by Axumite forces under Ella-Amida, who destroyed many of the site's pyramids. For ten points, identify this Nubian kingdom that ruled the whole of Egypt and beyond during the eighth and seventh centuries BCE.

Answer: Kush (prompt on early buzz of "Nubia")

15. His nemesis writes a play called *The Enchanted Hunters*, and is eventually shot with a gun lent by Gaston Godin, a friendly chess player. His own death is reported by John Ray at the beginning of the

novel, and supposedly occurs from coronary thrombosis. After his first wife leaves him for Maximovich, he lucks out when his second, Charlotte Haze, is run over by a car, after which he goes to summer camp to pick up his true love. For ten points, which literary character lusts after a nymphet really named Dolores in a work by Vladimir Nabokov?

Answer: Humbert Humbert

16. His scientific contributions include work on the histology of cartilage and bone, but he is better known for his work in psychology. His most important discovery resulted from work at the Bicetre hospital with a patient known only as "Tan." As secretary of the French Anthropological Society, he published a series of papers that used the clinico-pathological correlation technique to analyze what he called aphemias, and what was later termed his type of aphasia. For ten points, identify this French neuroscientist, who discovered an area of the frontal lobe responsible for language.

Answer: Paul Broca

17. The leader of Red Stick Confederacy prompted this battle, after the growth of a religious center at the junction of two rivers began to threaten whites in the area. Without consulting James Madison, William Eustis gave permission to the territorial governor of Indiana to approach the site. Upon arriving, his forces were assaulted by Shawnees who believed they were impervious to musket fire. They weren't. For ten points, identify this 1811 battle at which William Henry Harrison made his name.

Answer: Tippecanoe (or Prophetstown)

18. As the novel begins, the main character's only hold on reality is a tape recording of business transactions played by the secretary Padilla. Told through flashbacks, after the protagonist's first love Regina is hanged, he takes up with Catalina Bernal, whose brother Gonzalo's idealism is contrasted with the title figure's corruption and condition: the result of a gastric attack after a return to Mexico City. For ten points, identify this novel about the passing of a landowner, written by Carlos Fuentes.

Answer: *The Death of Artemio Cruz* (*La Muerte de Artemio Cruz*)

19. The unit associated with this effect is equal to $25,813 \text{ Ohms}$ and is given by the formula h -bar divided by e squared; to find the resistance in a particular case that unit must be divided by the number I of Landau levels below the Fermi energy for the given magnetic field. A few years after its discovery, Gossard, Tsui, and Stormer found that I can sometimes take fractional values. For ten points, name this microscopic version of a more well known effect in physics discovered by Klaus von Klitzing, in which a magnetic field applied perpendicular to a current results in the development of a voltage in the third perpendicular direction.

Answer: quantum Hall effect

20. Andrimne prepares the stew and the tree Laerad grows on its roof. Protected by the river Thund and a barred gate, creatures living in it include Gullinkambi, the cock who will announce the forthcoming battle, and Heidrun, a goat whose udders provide inexhaustible mead to the Einherjar. With rafters made of spears and long tables covered with chain mail, heroic warriors gorge themselves on meat provided by the boar Saerimne while Odin looks on. For ten points, identify this afterworld of Norse myth, only accessible after dying and being chosen by the Valkyries to come.

Answer: Valhalla

21. Simple applications of this device, whose most famous model is the L741, include a digital-to-analog converter and the analog computer, which could solve differential equations mechanically. Assumptions that allow for easier calculations include equal voltage between the inverting and non-inverting terminals, and zero current flowing into each terminal. For ten points, name this non-linear element in a circuit, symbolized on a circuit diagram by a triangle, which in essence is a controlled voltage source or a voltage amplifier with very high gain.

Answer: operational amplifier (or op-amp)

22. In this work, the main character meets Dorothy Raycroft after being stationed in South Carolina. Though he wants to follow in the literary footsteps of his friend, Richard Caramel, the protagonist only

succeeds in becoming an alcoholic stuck in an interminable courtroom battle. After the patriarch of the family, Adam Patch, makes an appearance at a wild party and is disgusted, Gloria and Anthony are disinherited. For ten points, identify this novel of material and spiritual dissolution, a 1922 work by F. Scott Fitzgerald.

Answer: The Beautiful and Damned

23. Elections in this man's country were recently annulled when the 50% turnout required for validity was not met, although results showed that his DSS Party won 66.4 percent of the popular vote. Traditionally anti-American, his rallying cry was once "say no to the White Palace and no to the White House," and he refused to support either the Dayton accords or the NATO campaign in Kosovo. For ten points, name this former professor at Belgrade University, a candidate for the presidency of Serbia and the current president of Yugoslavia.

Answer: Vojislav Kostunica

Bonus Questions

1. Identify these parts of the eye for ten points each.

a. Six muscles attached to this hard, outer covering of the eye, more commonly known as the white, allow eye movement. The optic nerve is attached to it at the very back.

Answer: sclera

b. This extremely sensitive part of the retina allows us to perform tasks that require central detailed vision, such as reading. The fovea, responsible for all color vision, is in its center.

Answer: macula lutea

c. The aqueous humor drains out through these ducts every two to three hours. If they become blocked, glaucoma can result.

Answer: canals (or ducts) of Schlemm

2. Identify the following related to a hip-hop group for ten points each.

a. This Atlanta duo first gained notoriety for the release of Southernplayalisticadillacmusic, which featured such hits as "Crumblin 'Erb" and "Player's Ball."

Answer: Outkast

b. The song "Mrs. Jackson" from Outkast's Stankonia was purportedly composed by Dre to apologize for the break up of his relationship with this soul singer of "Next Lifetime" and "Bag Lady."

Answer: Erykah Badu

c. Along with Slimm Calhoun, Goodie Mob and various other affiliates, Outkast recently released an album as this super group, whose moniker sounds downright medieval.

Answer: Dungeon Family

3. Identify the following about a French author for ten points each.

a. Informally educated at Port Royal, this 17th century dramatist's many tragedies include *Mithridate*, *Berenice*, and a comedy based on Aristophanes, *The Litigants*.

Answer: Jean Racine

b. In this work, Racine describes the havoc wreaked on the house of Pyrrhus after he takes the title character into his house. Though she eventually marries him, it is only to save her son Astyanax.

Answer: Andromache

c. In this work the tragic heroine and wife of Theseus is cursed by Aphrodite and so compelled tries to win the hand of her stepson away from the Princess Aricia.

Answer: Phedre

4. Identify the architects of the following monumental pieces of sculpture found in the U.S., 5-10-15.

a. The Statue of Liberty

- Answer: Frederic Auguste Bartholdi
- b. The statue of Lincoln at the Lincoln Memorial
Answer: Daniel Chester French
- c. Crazy Horse Memorial in Custer, South Dakota
Answer: Korczak Ziolkowski
5. Answer the following about a 16th century naval conflict for ten points each.
- a. When the forces of Selim II began to threaten Venice in April of 1570 this pope called for a conference to organize a mutual defense for the island.
Answer: Pius V
- b. Pius V's call for action was answered in large part by Philip II of Spain, who placed this half-brother from Austria in charge of a 300+ vessel fleet to oppose the Turks.
Answer: Don John (or Don Juan) of Austria
- c. Don John became a hero after he defeated the galleys of Ali Pasha at this site on October 7, 1571.
Answer: Lepanto
6. Identify these functional groups for ten points each.
- a. The tautomer of a ketone, this is a compound where one carbon of a double-bonded carbon pair is also attached to a hydroxyl group.
Answer: enol
- b. This is a functional group containing both secondary amine and carboxyl groups. Linkages of these groups form the secondary structure of proteins.
Answer: amide
- c. This is a compound with the formula R-CN where R is an alkyl or aryl group, and the carbon and nitrogen atoms are triple-bonded. It is also known as the cyanide group.
Answer: nitrile
7. Identify these early Soviet leaders, 5-10-15.
- a. Aside from an attempt on his life by the muralist David Siquieros, this man is most famous for being the first commander of the Red Army.
Answer: Leon Trotsky (also accept Lev Davidovich Bronstein)
- b. This man was one of Stalin's chief aides and a member of the Presidium. He was a secretary of the Communist Party in Leningrad until 1934 when he was assassinated, prompting the Great Purge.
Answer: Sergey Kirov
- c. Implicated in the murder of Kirov, this leader formed a triumvirate with Zinoviev and Stalin to run the country after the expulsion of Trotsky. At his height he was a member of the Politburo and the Chairman of the Moscow Soviet.
Answer: Lev Kamenev
8. Answer the following questions about osmosis for ten points each.
- a. Osmotic pressure, the pressure required to stop the net transfer of a solvent across a semi-permeable membrane, is what type of property, which depends only on the concentration of the solute and does not depend on its chemical identity?
Answer: colligative
- b. If the osmotic pressure in the solution surrounding the cell is less than within the cell, the cell can burst. Conversely, a higher osmotic pressure can cause the cell to shrivel up, acquiring a scalloped surface. For ten points each, what are the terms for these processes of bursting and shriveling?
Answer: lysis and crenation
9. Answer some questions about a poet and his works for ten points each.
- a. This Quaker poet was a staunch abolitionist, and the Civil War inspired his 1863 poem "Barbara Frietchie."
Answer: John Greenleaf Whittier
- b. This poem by Whittier begins by blessing its subject and then describing him as having "cheeks of tan," "turned-up pantaloons," and "red lips kissed by strawberries on the hill."

Answer: "The Barefoot Boy"

c. This Whittier poem begins when the title character, "on a summer's day, raked the meadow sweet with hay" and contains the famous line, "For all the sad words of tongue or pen, the saddest are these: it might have been."

Answer: "Maud Muller"

10. Answer the following about a Hindu deity for ten points each.

a. Usually the first god invoked at the beginning of worship, he is known as the scribe of the Mahabharata and the remover of obstacles.

Answer: Ganesh(a)

b. Ganesh is best known for this odd anatomical feature bestowed upon him after he refused to let Shiva pass when his mother Parvati was bathing.

Answer: he has an elephant's head (accept equivalents)

c. Ganesh may have an elephant's head, but the weirdest part of his appearance may be his strange mount; what type of animal does he ride?

Answer: a rat

11. For ten points, answer these questions regarding the source of the finest vanilla in the world.

a. Name this, the fourth largest island in the world, which was suggested by the Nazis as possible deportation location for the Jews of Europe.

Answer: Madagascar

b. This city, whose name means "The City of a Thousand Warriors," contains the Zoma, the largest open-air market in the world. It is the capital of Madagascar.

Answer: Antananarivo

c. This is Madagascar's premiere resort island, and is the largest off its northwestern coast. Its capital is Andoany, or "Hell-Ville" in French.

Answer: Nosy Be

12. Identify these historical figures with a common last name, 5-10-15. Obviously, we need first as well as last names for the answers.

a. Before he was killed with his brother Hyrum in a Carthage, Illinois jail, this man found some golden plates, married at least 27 wives, and founded the Mormon church.

Answer: Joseph Smith

b. Representing Maine in Congress from 1940 to 1948, she became the first woman to be elected to both houses of Congress and the first to have her name nominated for presidential ballot by a major political party.

Answer: Margaret Chase Smith

c. This former fighter pilot served as prime minister and leader of Rhodesia, later Zimbabwe, when it declared independence in 1965; he stayed in power until 1979.

Answer: Ian Douglas Smith

13. Answer the following about a contemporary author and his work for ten points each.

a. In "The Literature of Exhaustion," this Baltimore based author argues that fiction is unable to keep up with the postmodern world. Novels of his include Letters and The Sot-Weed Factor.

Answer: John Barth

b. In this strange allegorical work, Barth writes about a world run like a university. It follows the adventures of the title character, alias Billy Bockfuss, who was reared by animals.

Answer: Giles Goat Boy (or The Revised New Syllabus)

3. This novel, Barth's first, describes Todd Andrews' affairs with Betty Gunter and Jane Mack and is primarily concerned with an abortive attempted suicide on a showboat.

Answer: The Floating Opera

14. Name these U.S. Secretaries of Labor, FTP each:

a) This German-born man became the first Jewish-born cabinet member when Theodore Roosevelt named him secretary of commerce and labor.

Answer: Oscar Solomon Straus

b) This first-ever female Cabinet member served throughout FDR's tenure, during which time she pushed for a minimum wage and a maximum workweek and for the creation of the Civilian Conservation Corps.

Answer: Frances Perkins

c) This diminutive labor secretary under Clinton and author of *The Future of Success* and *The Work of Nations* sought the Democratic nomination for Governor of Massachusetts in 2002.

Answer: Robert Reich

15. Identify these terms related to the study of electromagnetic waves for ten points each.

a. This is the velocity with which energy is transferred in a wave. For the case of electromagnetic waves, it is always equal to 3×10^8 (three times ten to the eight) meters per second.

Answer: phase velocity

b. The phase velocity is equal to the group velocity in a medium when this effect is not present.

Answer: dispersion

c. The cross product of the electric and magnetic fields yields this vector, which determines the direction of propagation of the EM wave.

Answer: Poynting vector

16. For ten points each, answer these questions about a group of philosophers.

a. It began as an outgrowth of the Institute of Social Research under Felix Weil and Carl Grunberg, and with famous members like Max Horkheimer espoused a unique mix of Freud, Marx, and Weber.

Answer: the Frankfurt School

b. One important member of the Frankfurt school was this author of *Soviet Marxism, Counterrevolution and Revolt*, and most famously, *One-Dimensional Man*.

Answer: Herbert Marcuse

c. This work, a collaboration between Theodor Adorno and Max Horkheimer, contains famous analyses of the *Odyssey*, but is mostly a discussion of the implications for the titular concept, popularized by Kant.

Answer: The Dialectic of Enlightenment

17. For ten points each, answer the following about a composer.

a. This master of opera *verismo* replaced Toscanini as music director of La Scala in 1929, and late in his career embraced Mussolini's fascism, composing the opera *Nerone* (neh-ROH-nay) for him.

Answer: Pietro Mascagni (mah-SKAHN-ye)

b. Mascagni is best known for this adaptation of a Verga novella, which centers on the love triangle between Lola, Santuzza, and Turriddu.

Answer: Cavalleria Rusticana

c. For a time early in his life, Mascagni studied under this composer of "I Promessi Sposi" and "La Gioconda."

Answer: Amilcare Ponchielli

18. Answer these related questions on nineteenth century American politics for the stated number of points.

a. For ten, in an 1832 speech to the Senate, this man defended Martin Van Buren's nomination as minister to Great Britain with the maxim that "to the victor belong the spoils of the enemy."

Answer: William L. Marcy (-10 for "William H. Macy")

b. For five, though born in Massachusetts, William Marcy became notorious as a member of this group of vilified New York-based Democrats.

Answer: the Albany Regency

c. Later on, New York Democrats split into two factions. Marcy and Daniel Dickinson became leaders of the more conservative branch, while his former friend Van Buren emerged as the leader of the liberal opposition. You get five for naming one group and fifteen for both.

Answers: Hunkers and Barnburners

19. Name these characters from George Orwell's *1984* for ten points each.

a. He is a member of the Inner Party, but Winston believes that he is a member of the Brotherhood. He

gives Winston The Book.

Answer: O'Brien

b. This man never appears in the novel, but he is the most feared person in Oceania. He is the alleged leader of the Brotherhood and the writer of The Book.

Answer: Emmanuel Goldstein (accept either)

c. He is working on the newest version of the Newspeak dictionary. Winston thinks this man is too intelligent to stay in favor with the party.

Answer: Syme

20. Identify these Bourbon-era finance ministers for ten points each.

a. Before he died, Mazarin purportedly told Louis XIV that this man's service was the greatest gift he could leave his king. By encouraging manufacturing and instituting stricter books, he was successful at balancing government expenses.

Answer: Jean Baptiste Colbert (coal-BEAR)

b. A die-hard physiocrat, this man served as comptroller general to Louis XVI, but overstepped his bounds when his Six Edicts of 1776 tried to abolish the corvee (cor-vay).

Answer: Jacques Anne Robert Turgot (tour-ZHOH)

c. This Swiss-born financier ended up serving three terms as director general of finance under Louis XVI. He is also famous for his wife's literary salon and his daughter's literary career.

Answer: Jacques Necker

21. Identify the following about a writer for ten points each.

a. With the help of a British patron, Walter Jekyll, he published his first volume of poetry, *Songs of Jamaica*. Other works by this author include *Banana Bottom* and *Gingertown*.

Answer: Claude McKay

b. Claude McKay's most important work is probably this 1928 novel about Jake Brown, an army deserter who returns to the title locale.

Answer: Home to Harlem

c. *Home to Harlem* was followed by this novel, which focuses on a cast of drifters living in Marseilles. It is named for an instrument popular in African-American music.

Answer: Banjo

22. Identify these matrices appearing in calculus for ten points each.

a. This is a square matrix where the first row of terms are functions, the second row derivatives of those functions, the third row second derivatives, etc. It is often used to determine whether two or more functions are linearly dependent.

Answer: Wronskian

b. This matrix contains all first partial derivatives of a multivariable function. It is most commonly used when making coordinate transformations.

Answer: Jacobian

c. Similar to the Jacobian, this matrix contains all second partial derivatives of a function F.

Answer: Hessian