

*2000 Michigan MLK Memorial*

*Questions by Ezequiel Berdichevsky and Northwestern Bauer*

**Tossups**

1.

In 1957, Scottish virologist Alick Isaacs, director of the World Influenza Center in London, and his Swiss colleague, Jean Lindenmann, injected a small amount of flu virus into chicken embryos. The eggs responded by producing a protein that seemed to cling to virus particles and inhibit with their replication process. FTP, what is this protein, the immune system's main defense against viral invaders?

Answer: interferon

2.

On Christmas Eve, the title character comes upon a beautiful castle and is challenged by the lord to hunt, for three consecutive days, within its walls while he hunts outside. Each day, the hero receives a kiss from the lady of the manor and on the third day is offered a magical girdle. When Bertilak calls him to the chapel, he gives him a slight cut on his neck. FTP identify this 14<sup>th</sup> century alliterative poem on an Arthurian theme by an unknown Lancashire author.

Answer: Sir Gawain and the Green Knight

3.

He graduated from West Point in 1826 but in 1834 left the U.S. Army to go to Texas where he served as secretary of war of the Texas republic. He then commanded forces in the Utah War. In 1861, he joined the Confederacy and was given the impossible task of defending the area between the Appalachian Mountains and the Mississippi River, where he lost Fort Donelson. FTP name this Confederate general, highly regarded by Jefferson Davis, who died at Battle of Shiloh.

Answer: Albert Sidney Johnston

4.

Most of the founders of this organization worked in Biafra between 1968 and 1970. Recently, it has been providing emergency medical assistance in Angola, Kosovo, South Sudan, Sierra Leone, and East Timor. FTP, name this French-founded humanitarian organization that won the 1999 Nobel Peace Prize.

Answer: Medecins sans frontières or Doctors without Borders

5.

After the protagonist's grandfather makes an appearance at one of his wild parties he and his new wife Gloria are disinherited. They spend the rest of their lives wallowing in drink as the lawsuit over the inheritance drags on. FTP identify this F. Scott Fitzgerald work featuring Anthony Patch.

Answer: The Beautiful and Damned

6.

Under the terms of the treaty, British citizens were subjected to British laws, not Chinese ones, when they committed crimes on Chinese soil. It also promised the territory of Hong Kong to Great Britain, marking the first step in the exploitation of China by the West. FTP, name this 1842 treaty that ended the first Opium War.

Answer: Treaty of Nanking

7.

This director's first feature film, "Next of Kin," debuted in 1984 at the Toronto Festival of Festivals. His fourth film, "The Adjuster," became his first film to be widely distributed in the United States. "Exotica" debuted at the Cannes Film Festival in 1994 and won the International Critics' Prize. FTP, name this director whose 1997 film "The Sweet Hereafter" won three awards at Cannes, and received two Academy Award nominations.

Answer: Atom Egoyan

8.

In photography, it refers to the slight difference in perspective between the viewfinder and the lens when the subject is closer than 3 feet away from the camera. In astronomy, it is the apparent displacement of a nearby star against a background of more distant stars that results from the motion of the Earth. FTP, identify this term defined as an alteration in the relative observed positions of objects, produced by a change in the position of the observer.

Answer: parallax

9.

Born in San Francisco, this person received a bachelor's degree from Stanford University in 1955. Then-California governor Pat Brown appointed her to the women's parole board in 1960. She served on the San Francisco Board of Supervisors from 1970-1978, and then she served as mayor of San Francisco from 1978 to 1989. After an unsuccessful run for the governor's seat in 1990, she was elected to the Senate in 1992. FTP, name this current senator from California up for re-election in 2000.

Answer: Dianne Feinstein

10.

His career includes 3 perfect games and 2 record breaking scoreless innings streaks, even though he only played baseball for 2 years, and that was as a college outfielder. He's called it all: Hank Aaron's 715<sup>th</sup> Home Run, Kirk Gibson's dramatic game-winning homerun in Game 1 of the 1988 World Series, and Johnny Podres' shutout of the Yankees in Game 7 of the 1955 World Series. FTP, name this Hall of Fame broadcaster who spent his 50<sup>th</sup> year with the Dodgers in 1999.

Answer: Vin Scully

11. The only child of an Italian mother and an English father, she was raised in Italy but as the poem begins she is sent back to England to receive her education as a young woman. Published in 1857 its 11000 lines depict the life story of a woman's struggle to become a writer and feature a romance with her philanthropist cousin Romney whom she at first rejects, but later marries. FTP name this novel in verse by EB Browning whose title is derived from the classical goddess of the dawn.

Answer: Aurora Leigh

12.

A 4000-mile by 1500-mile region, this sparsely inhabited area lies in northern Russia. The highly acidic podzol soils of this region are among the poorest in the world and the subsoil is permanently frozen. FTP, name this area, the world's largest forest, which lends its name to a biome.

Answer: Taiga

13.

Son of Poeas, he was a guide of the Greek expedition to Troy and led them to the island of Chryse to sacrifice its goddess. In the last year of the war, Priam's son Helenus prophesied that without this man on the Greek side, Troy would not fall. He was not there however because of a stinky snakebite received on Chryse. FTP identify this Greek hero who wielded the bow of Heracles and was brought to Troy by Odysseus and Neoptolemus.

Answer: Philoctetes

14.

In 1997, this country descended into anarchy when President Pascal Lissouba (lee-sue-bah) was deposed by Colonel Dennis Sassou Nguesso. Rebel supporters of Lissouba have been fighting government troops in a brutal civil war in which tens of thousands of women have been raped and over 500,000 people are homeless. Colonel Pierre Boungou Boungou (BOO-NGOO), the leader of the rebels, finally signed a truce in November 1999. FTP, name this West African country with capital at Brazzaville.

Answer: Republic of the Congo, or Congo-Brazzaville

15.

This San Francisco native worked on radar research and development for the Manhattan Project, and won a Nobel Prize in physics for his development of the liquid hydrogen bubble chamber. He is equally well known for his discovery of unusually high levels of iridium at the boundary between Cretaceous and

Tertiary rocks. FTP, name this 1968 Nobel laureate who, with his geologist son Walter, postulated that a meteor impact caused the extinction of the dinosaurs.

Answer: Luis Alvarez

16.

The original group included Isaac Hill, editor of the New Hampshire Patriot; Francis Preston Blair, editor of the Washington Globe; and Amos Kendall, a minor government official and the reputed leader of the group. FTP, name this small, unofficial group of personal associates that Andrew Jackson consulted, shortly after his inauguration in 1829, on important matters of state.

Answer: Kitchen Cabinet

17.

This novel features six correspondents each with their own particular style and point of view, and the novelist presenting himself as the editor. Supporting characters include Mrs. Jervis and Mr. Longman who send the title character to work in the house of a certain Mr B. There the pretty servant girl's successful resistance to the sexual assaults of her master are refuted until he marries her. FTP identify this novel of virtue published in 1740 and written by Samuel Richardson.

Answer: Pamela

18.

In pottery, it is a decorative ceramic vessel with a perforated cover made to hold a liquid mixture of aromatic spices, fruits, and the petals of flowers that was intended to produce a pleasant scent as the mixture moldered. FTP, identify this term synonymous with a "miscellaneous collection" or "medley."

Answer: potpourri

19. This American sociologist described social interaction as a stage performance, where the front region is the socially accepted behavior we act out for others, while the back region contains our suppressed feelings. A student of the Chicago school of sociology, his dramaturgical approach suggests that people put on different masks to adapt to various social situations. FTP, name this sociologist, who released his most famous work, "The Presentation of Self in Everyday Life," in 1959.

Answer: Erving Goffman

20.

He ascended to the throne of the beleaguered Byzantine Empire in 1081, and began his reign by combining with the Venetians to resist Norman invaders led by Robert Guiscard. His empire then came under siege from the Muslim Seljuk Turks. His subsequent appeal to Pope Urban II for aid in fighting the Turks inspired the First Crusade. FTP, name this Byzantine emperor.

Answer: Alexius I Comnenus

21.

With his pupil Benozzo Gozzoli, he painted frescoes for the cathedral in Orvieto, earlier he had been summoned to Rome by Pope Eugenius IV to paint frescoes for the now destroyed Chapel of the Sacrament in the Vatican. Born in Vicchio, Tuscany, he began using the name Giovanni da Fiesole. Among his important early works are the Madonna of the Star and Christ in Glory Surrounded by Saints. When his convent moved to San Marco in Florence he designed its famed altarpiece. FTP identify this renaissance painter and friar originally named Guido de Pietro.

Answer: Fra Angelico 1400-1445

22.

First diagnosed in 1977, in a variant of this disease, sufferers feign illness in another person to compensate for a traumatic loss in their own lives. Florida prosecutors charged mother Kathy Bush with poisoning her own daughter to get attention from doctors, and on October 7, 1999, she became the first person with the disease to be found guilty of child abuse. FTP, identify this mental disorder named for a German folk hero famous for his tall tales.

Answer: Munchausen syndrome

23.

The origin of this term has been traced to the Paul Newman film *Cool Hand Luke*. Normally, it denotes a type of edible, spiny-rayed fish found in fresh and salt waters having a small mouth and feeble teeth. Variations on the term include schlong; ape drape; the Billie Ray; business in the front, party in the back; and hockey haircut. FTP, name this preferred hairstyle of heshers, buttrockers, and carnies: short in the front, and long in the back

Answer: the mullet cut, or mullet head

24.

He wrote his first book when he was just 16 years old for a literary contest. His Pulitzer Prize winning tale of Ignatius Reilly won critical acclaim and established him as one of America's most promising writers, but he committed suicide in Biloxi, Mississippi at the age of 31. FTP, name this author of *The Neon Bible* and *A Confederacy of Dunces*.

Answer: John Kennedy Toole

25.

He first attracted attention, when, as CEO of General Mills, his cost-cutting techniques earned him the nickname "The Cereal Killer." In his current job, he advocated "breaking down the wall between the business and editorial departments," an unpopular goal that came back to haunt him when, in October 1999, his newspaper produced a special magazine about the new Staples Center that, unbeknownst to his editorial staff, was actually an advertisement paid for by the sports arena. FTP, name this controversial CEO of Times Mirror and former publisher of the Los Angeles Times.

Answer: Mark Willes

27.

In this cyclic process, a system performs work by reversibly traversing two isothermal and two adiabatic (ay-die-uh-bat-ick) paths to return to its original state. We thus have an idealized model for a heat engine, a device that transforms heat into work. FTP, what is this cycle named after an officer in Napoleon's Army Corps of Engineers?

Answer: the Carnot cycle

28.

South of the Canadian Shield, it is sometimes called the heartland of Canada. This region is located within Ontario and Quebec and sixty percent of all Canadians live in this region. It serves as the agricultural and economic core of Canada. FTP, name this area which shares its name with the system of lakes and the river that form its boundary.

Answer: Great Lakes-St. Lawrence Lowlands

### Bonuses

1.

Name the following works of literature given some shady characters for 15 or an author for 5:

(15) Marks and Simon Legree

(5) Harriet Beecher Stowe

Answer: Uncle Tom's Cabin

(15) Alan Squier, Duke Mantee

(5) Robert Sherwood

Answer: The Petrified Forest

2.

Much of the northern U.S. was once covered by glaciers, but the only evidence of their existence is found in the geologic formations they left behind. Identify the following glacier formations 5-10-15.

(5) These piles of loose rocks, found at the end of a U-shaped valley and marking the farthest advance of the glacier, are formed by debris rolling off the edges of the glacier.

Answer: Terminal moraine (Prompt at "moraine")

(10) This steep-walled, bowl-shaped basin carved out of the side of a mountain is formed by glacial erosion.

Answer: Cirque

(15) This sharp-crested ridge separates opposing cirques. It has steep sides formed by the collapse of unsupported rocks.

Answer: Arete

3.

30-20-10. Name the year.

(30) The Oakland A's won the World Series in 5 Games, the Philadelphia Flyers won the Stanley Cup in 6 Games, and the Boston Celtics won the NBA Championship in 7 games.

(20) Two Mel Brooks comedies were released this year: *Blazing Saddles* and *Young Frankenstein*.

(10) Patty Hurst was abducted; Gerald Ford was inaugurated as the 38<sup>th</sup> President of the United States; and Henry Aaron hit number 715.

Answer: 1974

4.

FTPE, Identify the following about a mythological figure.

(10) This son of Tantalus had his shoulder eaten by Demeter at a feast for the gods.

Answer: Pelops

(10) After he was boiled and turned back to life, he raced chariots to win the hand of this woman who became his wife.

Answer: Hippodamia

(10) But Pelops was cursed to repeat the sins of his father and treacherously killed this king of Arcadia, causing a great famine.

Answer: Stymphalus

5.

Answer some questions about events surrounding an English King 5 10 15

(5) In order to buy off the invaders, he paid the Danegeld and later fearing for his life, in 1013 he fled to Normandy

Answer: Ethelred II or Ethelred the Unready

(10) This man completed the Danish invasion begun by Sveyn in 1016 and took over the country.

Answer: Canute

(15) For much of his reign, Ethelred was under suspicion of killing this half-brother in order to secure the throne.

Answer: Edward the Martyr

6.

Identify these probability-related terms FTP each.

(10) This distribution gives the probability of a given number of successful results in a given number of independent Bernoulli trials.

Answer: binomial distribution

(10) This is the two-word term that describes a function from the sample space of an experiment to the set of real numbers.

Answer: random variable

(10) This term denotes the weighted sum of the values of a random variable, where the results are weighted by their probabilities.

Answer: expected value

7.

Answer the following questions about politics in India FTP each.

(10) Derisively nicknamed "Barbie in a sari", this Italian born woman leads the Congress Party.

Answer: Sonia Gandhi

(10) Sonia Gandhi's opponent, he is the current prime minister of India.

Answer: Atal Behari Vajpayee

(10) This is the party that Vajpayee leads.

Answer: Bharatiya Janata Party or BJP

8.

FTP each, identify the following Vonnegut books.

(10) This novel is subtitled "Goodbye Blue Monday" and features Kilgore Trout and Dwayne Hoover.

Answer: Breakfast of Champions

(10) This book, whose main character is Malachi Constant, takes place primarily in outer space and features the game of German Batball.

Answer: Sirens of Titan

(10) Subtitled "Lonesome No More," this novel offers Vonnegut's idea of extended families through middle names like Peanut-3.

Answer: Slapstick

9.

Given the hard liquor, identify the main fermenting ingredient for 5 points each with a 5-point bonus.

(5) Classic Russian vodka

Answer: potatoes

(5) Rum

Answer: sugarcane

(5) Gin

Answer: Juniper berries

(5) Tequila

Answer: the agave plant

(5) Sake

Answer: rice

10.

Identify the following films starring Marlene Dietrich, FTPE:

(10) In this film, which made her a star, Emil Jannings stars as a stuffy professor who falls in love with the cabaret singer Lola Lola.

Answer: The Blue Angel



- (10) Gary Cooper plays Tom Brown, a soldier, who has an affair with Amy Jolly another cabaret singer at La Tinto's club.

Answer: Morocco

- (10) This Dietrich film features an ape suit sequence and has her playing Helen Faraday who marries a chemist but really loves Nick Townsend played by Cary Grant.

Answer: Blonde Venus

11.

Identify these Japanese islands FTP each:

- (10) The northernmost, mostly forested island, home to Sapporo.

Answer: Hokkaido

- (10) The southernmost island, with cities such as Fukuoka and Nagasaki.

Answer: Kyushu

- (10) Situated next to Honshu, this is the fourth main island, located just south of the Inland Sea .

Answer: Shikoku

12.

Identify the following about a sensory system FTP each:

- (10) Identify what sensory system the eighth cranial nerve responds to.

Answer: auditory nerve; or hearing

- (10) For ten more points, all or nothing, name the three bones inside the inner ear

Answer: malleus, incus, stapes

- (10) For a final 10 points, what is the membrane housed inside of the cochlea that receives auditory vibrations:

Answer: basilar membrane

13.

Identify the following Philip Roth works FTP each.

- (10) This is the story of a young Jewish boy named Alexander who has a bizarre sexual disorder that may stem from his relationship with his mother.

Answer: Portnoy's Complaint

- (10) This is Roth's first book, a novella and five short stories, which won the National Book Award for Fiction.

Answer: Goodbye, Columbus

- (10) Name Roth's recent novel about a retired puppeteer named Mickey. It also won the National Book Award.

Answer: Sabbath's Theatre

14.

Do you know what Cabinet members did before they became a Secretary? Identify the following current members of the Cabinet based on a description of their previous assignments, FTP each.

- (10) This New Mexico native was the executive director of the New Mexico Democratic Party and ambassador to the United Nations before succeeding Federico Peña in July of 1998.

Answer: Bill Richardson

- (10) This Secretary, a star athlete in college, was inducted into the New England Basketball All-Star Hall of Fame in 1962. He also served three terms as a representative and three terms as a senator from Maine before assuming his current position in January 1997.

Answer: William Cohen

- (10) This South Carolina native served as an officer on a Navy minesweeper before twice serving as the governor of South Carolina. He joined the Cabinet in December 1992.

Answer: Richard Riley

15.

Identify the following Russian operas given characters FTP each:

- (10) Fata Morgana, Truffaldino, Ninetta

Answer: The Love of Three Oranges

- (10) Boris, Katerina, Sergey

Answer: The Lady Macbeth of Mtensk

- (10) Grigory, Dmitry, Rangoni

Answer: Boris Godunov

16.

Identify the following enzyme groups for the stated number of points:

- (5) For 5 points, these enzymes combine amino acids into proteins. Examples include trypsin and pepsin.

Answer: Proteases

- (10) FTP, these enzymes operate in the transfer of electrons. They join hydrogen molecules and oxygen molecules together to form water. Examples include catalase and cytochrome.

Answer: Oxidases

- (15) For 15 points, these enzymes combine monosaccharides and break down polysaccharides. Examples include amylase and sucrase.

Answer: Glycosidases

16.

For the stated number of points, identify these famous cathedrals:

- (5) For 5 points, this Italian cathedral was designed by Donato Bramante and Michelangelo, though its distinctive Doric-Tuscan columns were the work of Bernini.

Answer: St. Peter's Basilica

- (10) FTP, this cathedral was built over a century-long span according to the designs of Antonio Gaudy y Cornet. Located in Barcelona, Spain, it is primarily a neo-Gothic structure, with numerous ornate and spindly towers

Answer: Cathedral of La Sagrada Familia or The Sacred Family

- (15) For 15 points, this world's largest cathedral was built in only two years. It was the vision of President Felix Houphouet-Boigny, who hoped to create a beacon for Catholics in Africa. Located in the Ivory Coast, the cathedral's 632-foot-tall dome has seating for 7,000.

Answer: The Basilica of Our Lady of Peace

17.

Name the following forms of Japanese poetry 10-15-5:

- (10) A short poem that consists of five lines that follow the strict pattern of 5-7-5-7-7 syllables.

Answer: tanka



- (15) Popularized during the 15th century, this type of short poem began as the composition of a single tanka by two people.

Answer: renga

- (5) Yet another kind of short poem, this one follows the pattern of 17 syllables arranged in a sequence of 5-7-5.

Answer: haiku

18.

30-20-10. Name the man.

- (30) As a lawyer, he quickly gained a reputation as a supporter of civil rights for blacks, and in 1855 won a case that guaranteed the rights of blacks to ride any streetcar in New York City.

- (20) During the Civil War, he was named inspector general, then quartermaster general of the state militia by New York Governor Edwin D. Morgan.

- (10) He became the 21<sup>st</sup> President of the United States in 1881.

Answer: Chester Alan Arthur

19.

The recent independence of East Timor has emboldened other separatist movements in Indonesia. Some mineral-rich provinces claim that the national government is shortchanging them of their share of oil and gas revenues. Name the following disgruntled provinces for 15 points each.

- (15) On the northern tip of Sumatra, this staunchly Muslim province is home to a natural gas plant that is one of Indonesia's biggest earners of hard currency.

Answer: Aceh

- (15) This easternmost province makes up half the island of New Guinea.

Answer: Irian Jaya

20.

Name these related novels and their authors FTP each. You need both for the points.

- (10) Although HG Wells wrote of a modern one, this author originated the concept of an idealized world in his 1516 Latin work.

Answer: Utopia by Thomas More

- (10) A negative Utopian book it tells of Ijon Tichy's journey to discover the moon's military capabilities.

Answer: Peace on Earth by Stanislaw Lem

- (10) This 1872 novel focuses on the travels that Higgs undertakes in a balloon.

Answer: Erewhon by Samuel Butler

21.

Answer these questions about Sparta and its neighbors

- (10) FTP identify the longtime rival of Sparta which became the most powerful of the Greek city-states by the 7th century BC, when King Pheidon defeated Sparta.

Answer: Argos

- (10) FTP identify the Spartan leaders with the shared name, the first of whom defeated Argos in 494 BC, and the third, a son of Leonidas II, who was responsible for the removal of the ephor ruling class.

Answer: Cleomenes

- (10) FTP identify the commander who with the aid of Persian resources, gradually overcame the Athenian navy and won the decisive battle of Aegospotami in 405.

Answer: Lysander

22.

Thanks to La Niña, the 1999 Atlantic hurricane season was chaotic, with four tropical storms and eight hurricanes. Identify these tropical storms and hurricanes that made landfall in the U.S. for the stated number of points.

- (5) For 5 points, this category 4 Hurricane slammed into the Texas coast north of Brownsville on August 23. It hit a sparsely populated region, but caused \$60 million in damage.

Answer: Hurricane Bret

- (10) FTP, this minimal hurricane moved northeastward across southern Florida on October 15, dropping 20 inches of rain and indirectly causing eight deaths by electrocution and drowning. On October 18, it skirted the Outer Banks of North Carolina with 110 mph winds.

Answer: Hurricane Irene

- (15) For 15 points, in spite of unfavorable winds, this tropical storm formed in the Gulf of Mexico and moved southeast, coming onshore in southwestern Florida on September 21. It produced tropical storm winds throughout extreme southern Florida and the Florida Keys.

Answer: Tropical Storm Harvey

23.

Identify the basketball coaches at these Division I schools, 5 points each and a 5-point bonus:

- (5) Georgia

Answer: Jim Harrick

- (5) Arizona

Answer: Lute Olson

- (5) California State University-Fresno

Answer: Jerry Tarkanian

- (5) Seton Hall

Answer: Tommy Ammaker

- (5) North Carolina State

Answer: Herb Sendek

24.

Identify the following about some British events 5-10-15:

- (5) This man was the longest serving prime minister in the history of the post.

Answer: Robert Walpole

- (10) FTP when this economic scandal broke in 1720 Robert Walpole returned to the post of prime minister even though he had resigned earlier to protest the ousting of his brother in law and sec of state.

Answer: South Sea Bubble or scandal

- (15) The South Sea bubble did not affect Walpole politically because this man, his banker, told him not to invest in the scheme.

Answer: Robert Jancomb

25.

Given a description name the electoral system described FTP each.

- (10) This system is the least proportional, because a candidate does not have to win a majority of votes, only more votes than any other candidate. Only the winning party receives representation, which tends to result in a two-party system. This electoral system is found in the United States.

Answer: First past the post or FPTP

- (10) This system also gives representation to only one party, but the candidate must win a majority of the total votes cast in order to be elected. If no candidate wins 51% of the vote, a subsequent run-off election is held between the top two candidates. This system is used for presidential elections in Russia and France.

Answer: Majoritarian system

- (10) This system is generally used for parliamentary elections. All parties that win more than the threshold number of votes receive seats in the Parliament. The seats are awarded according to the percentage of votes cast that the party received. This method allows for a multi-party system.

Answer: Proportional system

26.

Let  $A$  be a square matrix. Identify the following terms from linear algebra for 15 points each.

- (15) A non-zero vector  $v$  such that  $A \text{ times } v = \lambda \text{ times } v$ , where  $\lambda$  is a real number.

Answer: Eigenvector

- (15) The number  $\lambda$  associated to an eigenvector.

Answer: Eigenvalue