

2000 Michigan MLK Memorial

Questions by Ezequiel Berdichevsky with some by University of Pittsburgh B

Tossups

1.

The climax of this film occurs after a phone is picked up and no answer is heard on the other line. When the killer enters the apartment, he is delayed by the flashes of a camera. Although he lusts playfully after Miss Torso, we can never take the protagonist seriously because his girlfriend, Lisa Fremont, is played by Grace Kelly. FTP identify this 1954 film starring Jimmy Stewart as a wheelchair bound photographer who solves a murder.

Answer: Rear Window

2.

One of his first scientific works, a paper on fatigue in metals of railway axles led to new methods of construction. His *Manual of Applied Mechanics* was of considerable help to designing engineers and architects. His classic *Manual of the Steam Engine and Other Prime Movers* was the first attempt at systematic treatment of steam-engine theory. FTP identify this Scottish scientist who worked out an eponymous thermodynamic cycle of events used as a standard for the performance of steam-power.

Answer: William Johnson Macquom Rankine

3.

The Proclamation of Telepinus is a major source for their early history. According to tradition the founder of the Old Kingdom was a leader named Labarnas. Later, when penetration into Syria brought them into conflict with Egypt, Mursilis II's successor, Muwatilis, won a victory over Ramses II at Kadesh. FTP identify these people who established a kingdom in central Anatolia and were eventually destroyed by the Sea Peoples in 1200 BC.

Answer: Hittites

4.

Named after a headstream of a tributary for the Congo River it is a Level 4 hot agent. A member of the filovirus family along with the less lethal Marburg, the onset is sudden and harsh. Within a few days, the virus causes a condition known as disseminated intravascular coagulation. FTP what is this virus, whose outbreaks in Zaire, Kenya, and Reston, Virginia have killed many by causing massive internal hemorrhaging?

Answer: Ebola

5.

Every day of this celebration, a ceremony is performed before the evening meal where one person pours water or juice into the unity cup, and says "Harambee" meaning "Let us all pull together." All repeat and each person drinks from it. On the table are gifts, an ear of corn for each child, and a straw place mat with seven candles: one black, three red, and three green. FTP, name this seven-day holiday which was founded in 1966 by Dr. Maulana Karenga of California State University and takes place December 26 - 31.

Answer: Kwanzaa

6.

In this work, Melcthal's son Arnold loves the Austrian princess Mathilde. The opera turns in the square of Altdorf when a boy named Jemmy must pay the price for his father's disobedience of Gessler. Based on a play by Schiller and set in 14th century Switzerland FTP identify this work by Rossini whose title character shoots an apple from his son's head.

Answer: Guillaume Tell or William Tell

7.

Examples of them in the U.S can be found in Wisconsin, Illinois, and Iowa. They can be formed in areas where two impermeable shale beds sandwich a layer of sandstone, placing the groundwater in the

sandstone under tremendous pressure. FTP, name this site in which the water rises above the point where it is encountered to the "water pressure surface," which is named after a French province.

Answer: Artesian Well

8.

In Part I, he taunts Bajazet and his wife Zabina until they dash their brains out against the bars of their cage. His ferocity is briefly calmed after his capture of Damascus when he falls in love with Zenocrate the Sultan's daughter. Part II extends his conquests to Babylon where this former Scythian shepherd is finally defeated. FTP identify this 1590 play by Christopher Marlowe based on Mexia's *Spanish Life of Timur*.

Answer: Tamburlaine the Great

9.

First produced in 1846 by an Italian chemist, Ascario Sobrero, it has found use in medical circles over the years. Its application relaxes spasms of the biliary tract, the ureters and the respiratory system. However, it is most often used as a vasodilator for the treatment of diseases such as angina pectoris. FTP identify this substance associated with Nobel whose most well known function is the production of dynamite.

Answer: nitroglycerine

10.

Discovered by Picasso in 1908 in one of this painter's most famous works a full moon shines brightly in the top right illuminating the jar and guitar lying in front of the title character. All the while a male lion stalks the dunes. This painting along with *The Dream* and *Surprised* mark a style of naïve or untrained art. FTP identify this former customs inspector who drew magical scenes like *The Sleeping Gypsy*.

Answer: Henri Rousseau

11.

Following a rush of gold miners into Colorado, the Cheyenne and Arapaho tribes were forced into a desolate reservation in the southeast. When whites continued to inundate the territory, the Indians reacted by attacking stagecoach lines. In retaliation, John Chivington led a band of volunteers to attack a peaceful band of Cheyenne led by Black Kettle. FTP identify this bloody event that occurred on Nov. 29, 1864.

Answer: Sand Creek Massacre

12.

A Polish worker in 1938 smuggled notes of its construction to England. Based on a set of rotating drums, it was thought to be unbreakable. However, with the help of an actual machine and a team of mathematicians it was broken and used to help win the war. FTP, name this machine the Germans thought would be a true "mystery" to the allies.

Answer: Enigma Cipher or Enigma Machine

13.

By jamming a Victorola needle into the wood and playing through a speaker. In 1929, this 16-year old picker and tinkerer began his music career under the name Rhubarb Red and became a hillbilly radio star. He changed the sound of music forever by developing the overdubbing and multi-track studio techniques that would become the basis for all recording. For 10 points name this inventor and musician who perfected and patented his own series of electric guitars.

Answer: Les Paul

14.

These amendments set up a plan of two phases to complete by the year 2000 to lower sulfur dioxide emission. They also provided for reformulated gasoline to be sold in cities with the worst ozone problems, possible on-board charcoal absorption canisters in automobiles, and a pilot program for "clean cars" in California. FTP, name this 1990 legislation which gave extra help to the EPA in combating urban air pollution.

Answer: 1990 Clean Air Act

15.

This man's most important work is divided into four sections: Part one focuses on God, the second concerns the nature and origin of the mind, the third focuses on emotion, and the final section on human servitude. During his stay with Van den Enden, he discovered the philosophy of Rene Descartes and would later complete a geometrical version of that man's *Principae Philosopahe*. FTP identify this lens-grinding author of the *Tractacus Politicus* and the *Ethics*.

Answer: Baruch (or Benedictus) Spinoza

16.

He finished training in March 1918 and won the French Croix de Guerre two months later. Named commander of the 94th the "Hat-in-the-Ring" Squadron, he was awarded a belated Congressional Medal of Honor in 1930. He then became a successful racecar driver and drove in the first Indianapolis 500. He raised \$700,000 in one month to buy the Brickyard in 1927 and sold the track in 1947 for what he paid for it. FTP name this American WWI ace that headed Eastern Airlines from 1934-1963.

Answer: Eddie Rickenbacker

17.

Her husband William was the manager of the English Chronicle. In 1794, she received an unprecedented 500 pound advance for what is now considered her best work. Other novels include *A Sicilian Romance*, *The Romance of the Forest*, and *The Italian*. FTP identify this leading gothic novelist most famed for a story focusing on Emily St Aubert, the *Mysteries of Udolpho*.

Answer: Ann Radcliffe

18.

Named for a tribe of Indians it was discovered in 1771 by Samuel Hearne and encompasses an area of 11,170 square miles with a maximum depth of 2000 feet. During the four ice-free months of the year, it is an important transportation conduit of the Mackenzie River waterway, and tributaries include the Yellowknife and Hay Rivers. FTP identify this large lake located in the southwest of the Northwestern Territories in Canada.

Answer: Great Slave Lake

19.

Her popular name is actually a Greek bastardization of her true one, Het-Hert. The Greeks saw her as the equivalent to Aphrodite and she was worshipped along with Horus at Dendarah. A daughter of Ra, she was beneficent for the most part, although her control of the sun as sky goddess meant she also controlled droughts. FTP name this Egyptian goddess of love and marriage who was often depicted with the head of a cow.

Answer: Hathor

20.

He first dealt with the problem as the chairman of the Senate Banking Sub-commission on Financial Services and Technology. He worked on another committee with his deputy Dodd to prepare the nation, warning about problems with the chemical industry, air carriers, nuclear power plants, and European readiness. FTP, name this junior Utah Republican senator, the chairman of the Senate Special Committee on the Year 2000 Technology Problem.

Answer: Robert F. Bennet

21.

The currents involved in this process are very sensitive to magnetic fields and are useful in observing basic physical phenomena. On the basis of the BCS theory and work with Cooper pairs, a British physicist was able to predict the flow of electrons across an insulating barrier placed between two superconducting materials. FTP identify this process named after a 1973 winner of the nobel prize in physics.

Answer: Josephson effect

22.

This man's lesser known works include *The Twyborn Affair* and *The Vivisector*. In his most famous work inspired by the story of Ludwig Leichhardt, he focuses on the title character's attempt to cross a continent in the 1840s; it ends with a decapitation performed by the aborigine boy Jackie. FTP identify this writer of *Happy Days*, *Tree of Man*, and the Australian epic *Voss*.

Answer: Patrick White

23.

Considered a Rapid Application Development environment because of its ease in creating windowed programs, this program creates faster programs than its competition, Microsoft's Visual Basic. FTP, name this program in which you create programs in Pascal that is made by Inprise Corp. (formerly Borland) and not by Oracle as its name might suggest.

Answer: Delphi

24.

This American sculptor was born in 1850 in Exeter, New Hampshire. He studied briefly at M.I.T. but his art was mostly self-taught. Some of his well-known sculptures include "Standing Lincoln" in Nebraska's capital and "Alma Mater" for Columbia University. For 10 points name the sculptor who created "The Minute Man" at Concord, Massachusetts and the marble statue of seated Lincoln in the Lincoln Memorial.

Answer: Daniel Chester French

25.

It is a psychological term for the replacement of an anxiety-causing or unacceptable impulse or emotion with its over-emphasized opposite, as a young boy who hates his older brother for his accomplishments may transform this hatred into aggressive love and praise. FTP, give the two-word name for this, one of Freud's many defense mechanisms.

Answer: Reaction Formation

26.

Coming from the steppes to the north and east of the Caspian Sea, during the third and second millennia BC, they moved into southern Central Asia, and then to the Iranian Plateau. Invading the Indian subcontinent around 1500 BC, they brought the horse and chariot and the pre-Hindu religion found in the hymns of the Vedas. FTP, name this ethnic group thought to have had lighter skin than the Indus Valley natives they conquered, whose name was wrongly applied by Hitler to his "master race."

Answer: Aryans

27.

A common statistical measure of their frequency is the Wolf number. The development of a typical group begins when a loop of magnetic flux emerges from the interior of the photosphere. The darkest central area is called the umbra, is roughly circular in shape and they are typically 11000 miles in diameter. FTP identify these strongly magnetic, relatively dark areas on the surface of the sun.

Answer: sunspots

28.

Thousands of leftist protestors, mainly KKE supporters, took to the streets and later rioted in protest to President Clinton's recent visit in November to this Mediterranean country. FTP name the country Clinton visited that sparked off violent anti-American protests in Athens.

Answer: Greece

Bonuses:

1.

Identify the following poems from lines for 15 or from another clue for (5)

(15) "On either side the river lie/ Long fields of Barley and of rye"

(5) These lines begin a Tennyson poem focused on Elaine who is trapped in a tower under a curse.

Answer: The Lady of Shalott

(15) "Sweet Auburn! Loveliest village of the plain/ Where health and plenty cheered the laboring swain"

(5) These lines begin Goldsmith's 1770 work eulogizing the death of a rural way of life.

Answer: The Deserted Village

2.

FTPE given the active volcano, give the country in which it lies.

(10) Mt. Pinatubo

Answer: Philippines

(10) Hekla

Answer: Iceland

(10) Krakatau or Krakatoa

Answer: Indonesia

3.

Identify these scientists who shaped quantum mechanics for the stated number of points 5-10-15

(5) This colleague of Heisenberg developed the interpretation of orbitals as "probability clouds"

Answer: Max Born

(10) British scientist who made Schrodinger's equation compatible with Einstein's theory of relativity and solved it to find a fourth quantum number.

Answer: Paul Dirac

(15) His Self-Consistent-Field method for obtaining the best orbitals for many electron atoms is the basis for modern quantum chemistry.

Answer: D.R. Hartree

4.

Identify the following female comic book characters FTP each:

(10) She is the red haired main squeeze of the Amazing Spiderman.

Answer: Mary Jane Watson or Parker

(10) This Marvel character's real name was Ororo Munroe and she led the X-men in Cyclops' absence.

Answer: Storm

(10) This was the real name of the only female member of the Fantastic 4: the Invisible Girl.

Answer: Sue Richards

5.

FTPE name the economics terms from the definitions

(10) This is a legal minimum on the price at which a good can be sold for?

Answer: Price floor

(10) This is a situation in which supply and demand have been brought into balance?

Answer: equilibrium

(10) This is an excess of government receipts over government spending?

Answer: budget surplus

6.

Answer these questions about a recent espionage incident for 15 points each:

- (15) For 15 points, name the Taiwan-born computer scientist who is the central figure in the investigation into allegations of Chinese espionage at U.S. nuclear weapons laboratories and who was arrested in early December.

Answer: Wen Ho Lee

- (15) For another 15 points, name what secrets China is alleged to have stolen in the 1980's that caused Lee to become the target of a 3-year FBI investigation.

Answer: Details of the W-88 miniaturized nuclear warheads used on Trident submarines.

7.

Identify the following about a painter and his city 10-5-15:

- (10) This city became the sight of great activity in the middle of the 17th century and its inhabitants and views were painted by artists such as Carel Fabritius and Pieter de Hooch.

Answer: Delft

- (5) This painter is probably the most famous of those associated with the Dutch city of Delft.

Answer: Johannes Vermeer

- (15) Recently, this 1666 painting by Vermeer was on exhibit at the National Gallery. The canvas features an artist at an easel sketching a model dressed as Clio the muse of History.

Answer: The Art of Painting

8.

FTPE identify these acts passed under the Articles of Confederation:

- (10) This act guaranteed that the territory would be divided up into 10 new states when they each reached a certain population. Drafted a year after the Treaty of Paris, it would be superseded by other legislation three years later.

Answer: Ordinance of 1784 (must include year)

- (10) This act the following year authorized the land northwest of the Ohio River to be divided up into townships consisting of 36 sections of 640 acres each. The land would be sold to build public schools.

Answer: Land Ordinance (of 1785)

- (10) This far-reaching legislation revised the past laws and expanded government control of the territory. Population required for statehood was set at 60,000 and slavery was banned in the territory.

Answer: Northwest Ordinance

9.

Identify these plays by Pinter from a description FTP each:

- (10) In this play, Stanley, an out of work pianist, is confronted by Goldberg and Mcann about crimes he did not know he committed.

Answer: The Birthday Party

- (10) In this work, Teddy and Ruth return to the house of Mac, a butcher, whose sons make sexual advances toward Ruth and eventually turn her into a mother/prostitute figure.

Answer: The Homecoming

- (10) This play centering on a junk-filled room features interaction between the tramp Davies and the brothers Aston and Mick.

Answer: The Caretaker

10.

Identify these terms from modern algebra FTP each.

- (10) Cayley's Theorem states that any group is naturally isomorphic to a group of these kinds of functions.

Answer: permutations

- (10) William Hamilton's development of quaternion provided, in modern terms, the first example of a ring that satisfied all the multiplicative axioms for a field except for this one.

Answer: commutativity

- (10) Since the determinant of the product of two square matrices is equal to the product of their determinants, the determinant acting on multiplicative groups of matrices exemplifies this type of function between groups that preserves the basic group law.

Answer: homomorphism

11.

FTPE, identify the president based on misc. events during his term.

- (10) Second Hoover Commission forms. Hungarian Revolt. The National Defense Education Act passed.

Answer: Dwight Eisenhower

- (10) Economic Opportunity Act. Black Panthers founded. First Black cabinet member (Department of Housing and Urban Development)

Answer: Lyndon B. Johnson

- (10) President proclaimed "Crisis of Confidence" in the American People. Full diplomatic relations established with China. El Salvador Coup.

Answer: Jimmy Carter

12.

Identify the following movies based on War for the stated number of points.

- (5) Michael J. Fox and Sean Penn do a tour of duty in Vietnam

Answer: Casualties of War

- (10) Mathew Modine, Eric Stoltz, Billy Zane, and John Lithgow star in this sappy film about a WWII bomber crew on their last run.

Answer: Memphis Belle

- (15) In it, an infantryman gets all his limbs blown off and loses all his senses so that he has to communicate with the doctors and nurses by Morse code.

Answer: Johnny Got His Gun

13.

FTPE, identify these laws of physics.

- (10) The equation for this law is $F = -kx$

Answer: Hooke's Law

- (10) This law says that a pressure change on an enclosed incompressible fluid is transmitted without reduction to every portion of the liquid and the walls of the container.

Answer: Pascal's Principles

- (10) This astronomical law has two forms, the original that applies only to our solar system, and the Newtonian form that applies to any object in orbit.

Answer: Kepler's Third Law or Law of Periods

14.

For the stated number of points, give the names of these baseball players.

- (5) Payne Stewart's death brought back memories of a similar airborne fate of this Yankees catcher in 1979.

Answer: Thurman Munson

- (10) This player retired after the '99 season and will now be a scout and radio-announcer for the Tampa Bay Devil Rays.

Answer: Wade Boggs

- (15) This Dodgers rookie, a third baseman from the Dominican Republic, hit .275 with 15 HRs and 67 RBIs in '99. Major League Baseball recently ruled that the Dodgers did sign him before his 16th birthday, but he did not become a free agent.

Answer: Adrian Beltre

15.

FTPE identify the region of the brain from the given description.

- (10) An expanded continuation of the spinal cord, it is the location of the cardiac, vasomotor, and respiratory centers

Answer: Medulla Oblongata

- (10) It is responsible for control of body temperature, the gastrointestinal track, and arterial blood pressure.

Answer: Hypothalamus

- (10) The largest part of the brain, it is divided into two hemispheres and further into four lobes.

Answer: Cerebrum

16.

Identify the following about a novel 10-5-15

- (10) In this 1941 novel, an ex-commissar of the people is imprisoned by a totalitarian state over which No. 1 presides.

Answer: Darkness at Noon

- (5) Who wrote *Darkness at Noon*?

Answer: Arthur Koestler

- (15) Name the protagonist who is executed at the end of Koestler's novel.

Answer: Nicholas Rubashov

17.

Identify the following about a composer FTP each:

- (10) This German is most famous for a 1937 piece based on a manuscript of medieval poems, whose first movement is an invocation to the goddess Fortuna. Name both the man and his work for 10.

Answer: Carl Orff and Carmina Burana

- (10) Orff also composed a series of Songs based on this man's poems to Lesbia.

Answer: Songs of Catullus

- (10) Finally, Orff published a famous manual discussing his method of conducting name it.

Answer: Schulwerk

18.

Answer these questions about a scandalous issue in American History FTP each:

- (10) Occurring in President Grant's administration this plot among distillers and tax collectors was broken up in May 1875.

Answer: The Whiskey Ring

- (10) The Whiskey Ring was led by these two men one a collector of internal revenue and the other a personal secretary, Name either one for ten points.

Answer: John A. Macdonald or Orville E. Babcock

- (10) Identify the Secretary of the Treasury who exposed Macdonald and Babcock, but got no convictions.

Answer: Benjamin H. Bristow

19.

Identify the following about a mythological character FTP each:

- (10) The original wife of Odin whom he left for Frigga she was the Norse goddess of love and fecundity.

Answer: Freya

- (10) Freya is often drawn through the sky in a chariot by these creatures.

Answer: Cats

- (10) Even a chariot drawn by cats could not help her escape the giants. In one myth, Thor dresses up as Freya in order to be kidnapped and meet this frost giant in battle.

Answer: Thrym

20.

Identify these men who were involved in the early history of cellular biology

- (5) For five, this Englishman discovered cells in 1665 by looking at cork very closely.

Answer: Robert Hooke

- (10) For 10, this German physiologist along with the botanist Matthias Schleiden is credited to with formulating the cell theory--the theory that all living things are composed of cells in an 1839 work.

Answer: Theodor Schwann

- (15) For 15, in 1858 this man took Schwann and Schleiden's work a step further and stated that every cell is formed from a preexisting one.

Answer: Rudolf Virchow

21.

Identify the architect from buildings 30-20-10.

- (30) Mesa National Center for Atmospheric Research, Herbert F. Johnson Museum of Art

- (20) John F. Kennedy Library, National Gallery of Art-East Building

- (10) Bank of China, Rock and Roll Hall of Fame and Museum

Answer: I.M. Pei

22.

Answer these questions about a religious movement FTP each:

- (5/5) In 1823, an angel visited the son of a New England farmer with promises to give him a set of gold plates that would reveal a history of the early peoples of the Western Hemisphere. FTP each name the farmer and the angel.

Answer: Joseph Smith; Moroni

- (10) For 10 points, identify the name the Mormons submitted for their state when they applied for admission to the union.

Answer: Deseret

- (15) Finally, identify the nickname for the major Mormon Migration from Nebraska to the Great Salt Lake after Mormon agents could no longer afford wagons.

Answer: Handcart migration

23.

Identify the following Latin American writers from works FTP each:

- (10) *Dona Flor and her Two Husbands* and *Gabriela, Clove, and Cinnamon*

Answer: Jorge Amado

- (10) *Heartbreak Tango, Kiss of the Spider Woman*

Answer: Manuel Puig

- (10) *The Winners, Rayuela* (Raj-uela)

Answer: Julio Cortazar

24.

30-20-10, Give the historical figure from description.

- (30) He united his people under strict military rule and established the Yassa, a code of laws

- (20) His real name meant "Iron Smith," and he succeeded his father as chief when he was 13.

- (10) One of the greatest conquerors in history, Temujin expanded his united Mongolian empire into China, Iran, Russia, and India

Answer: Genghis Kahn

25.

Identify the following deep space objects from their Messier catalogue number on a 15-5 basis. 15 if you get it from the number, 5 if you need the constellation.

- (15) M31

- (5) Andromeda

Answer: The Andromeda Galaxy or The Great Galaxy in Andromeda

- (15) M42

- (5) Taurus

Answer: The Pleiades

26.

In honor of Charles Schulz's retirement, answer the following questions about the Peanuts comic strip.

- (5) What breed of dog is Snoopy?

Answer: Beagle

- (5) This character is Sally's "Sweet Baboo."

Answer: Linus

- (10) How much does Lucy's psychiatric help cost?

Answer: Five cents

- (10) What is Peppermint Patty's usual grade on papers?

Answer: D minus

27.

Questions about Hebrew Kings FTP each

- (10) This king was anointed the first king of Israel to answer the cry of the people for a king for their nation.

Answer: Saul

- (10) This king of Israel was responsible for the building the great Temple in Jerusalem.

Answer: Solomon

- (10) This poetic king of Israel ruled for 40 years and from his lineage, Christianity was born.

Answer: David