

2000 Terrapin Invitational Tournament - Division I

Round 7

Questions by Michigan B (Paul Litvak, Emily Moore, Ben Heller, David Thorsley)

Tossups

1. A 1906 experiment determined that the observed X-ray scattering by gases and beta-ray absorption by solids met with the results predicted by this theory. However, it could not be used to predict atomic spectra, and it was discredited after Rutherford's experiments with alpha particles. FTP, identify this early model of the atom, developed after the discovery of the electron by J.J. Thomson but before the discovery of the nucleus.

Ans: plum pudding model
(prompt on Thomson atomic model)

2.

His undergraduate thesis was titled *On the Principle of the Individual* and emphasized that the individual must be explained through the whole being. Soon after he wrote *De Arte Combinatoria*, and some of his philosophical innovations included the development of the principle of sufficient reason, and his individual law of identity. FTP, identify this philosopher, most famous for his theory of monads and development of the calculus.

Ans: Gottfried Wilhelm Leibniz

3. With an atomic weight of about 520,000, its structure of two large protein chains and four small ones can be split by proteolytic cleavage into two molecules commonly called LMM and HMM. The major protein component of thick filaments, the HMM part of the molecule can catalyze the breakdown of ATP. FTP, identify this protein that interacts with actin to allow muscles to generate force.

Ans: myosin

4. Nicola is an old servant of the family who is fond of the servant girl Louka, who ends up marrying a man who prefers chocolates to ammunition. Catherine is the energetic matriarch of the family, and the heroine Raina has romantic misconceptions of war that are shattered during the action. FTP, identify this play with title taken from Vergil's *Aeneid* featuring the Petkoff family, written by George Bernard Shaw.

Ans: *Arms and the Man*

5. He was concerned that many of his fellow sociologists were engaged in what he called "abstracted empiricism", and demanded that his colleagues take a more active role in moral leadership. His analysis of various social strata includes *White Collar: The American Middle Classes*, but in his best known work, he explored the concept of a ruling class based on administrative and bureaucratic power. FTP, identify this former Columbia professor, most famous for authoring *The Power Elite*.

Ans: C Wright Mills

6. The last independent dynasty to rule this people in its entirety was the Kayosid, which fell circa 380 C.E. Their major national epic is the Mem-o-Zin, written in 1695 by Ahmad Khani, and although they expected independence after the Treaty of Sevres in 1921, they are still the world's largest stateless ethnic group. FTP, identify this group whose homeland is divided among Armenia, Azerbaijan, Iran, Iraq, and Turkey.

Ans: Kurds

7. As a child, he was nicknamed Ix because his father was the only survivor of the Collapsing Hrung Disaster and his given name was unpronounceable. He chose the name by which he is now known because he thought it would be "nicely inconspicuous." Although he claimed to be from Guildford, England, it turned out that he was actually from Betelgeuse Five. FTP, identify this companion of Arthur Dent and field writer for *The Hitchhiker's Guide to the Galaxy*.

Ans: Ford Prefect

8. Composed over four and half years, it was originally commissioned by the composer's patron, Archduke Rudolph to celebrate his promotion to Cardinal in 1819. However, the first performance wasn't until 1824 in St. Petersburg, and although it is considered greater than the Mass in C it is rarely performed due to its length and difficulty. FTP, name this choral mass of Ludwig van Beethoven.

Ans: Missa Solemnis

9. It describes the young soldiers as "Bent double, like old beggars under sacks" and "drunk with fatigue." One doesn't fit his mask on in time, and as the poet sees him "guttering, choking, drowning" the others toss him in a wagon with blood "gargling forth from froth corrupted lips". FTP, name this war-time poem including an adage to Horace, by Wilfred Owen.

Ans: Dulce Et Decorum Est

10. The two culprits were French secret service agents, the actions of which led to the resignation of minister of defense Charles Hernu. The vessel involved was preparing to sail to French Polynesia to protest nuclear testing at the Mururoa Atoll, but the terrorists did their job as the boat never made it. FTP, name this Greenpeace-owned ship blown up in Auckland harbor in July 1985.

Ans: *Rainbow Warrior*

11. He is the son of Shimei and the nephew of Abihail, whose daughter he raises after his death. One day, he hears the plot of two eunuchs, Bigthan and Teresh, to assassinate the king; although he warns him, the grand vizier attempts to hang him on the thirteenth of Adar for the destruction of the people. FTP, name this cousin and antagonist of Haman, the cousin and guardian of Queen Esther.

Ans: Mordecai

12. One of the first graduates of Harvard, he was a Puritan and served in parliament during Cromwell's reign. As envoy to Holland for Charles II, his unwillingness to compromise resulted in the Second Dutch War. Joining the House of Commons in 1665, he there began the practice of using funds solely for the purpose stated in legislative appropriations. FTP, identify this secretary of the treasury for whom a famous London street is named.

Ans: Sir George Downing

13. In *Odi et amo* he mocked the death of his love's parrot, and his *Lament of Atthis* is an epic on the marriage of Peleus and Thetis. He traveled to Asia Minor with his friend Gaius Memmius, and upon seeing his brother's grave he composed an ode based on his words "Frater, ave atque vale." (FRAH-tair AH-vay AHT-quay WAH-lay) FTP, name this Roman poet whose love for the sister of Clodius Pulcher is immortalized as the character of Lesbia.

Ans: Gaius Catullus

14. While Simpson's rule approximates an integral using quadratic functions, this man's rule approximates integrals using cubics. The son of a shoemaker, he taught himself Greek and Latin to help grow beyond his working-class background. His seminal 1854 work, *The Laws of Thought*, is the basis for the field of symbolic logic. FTP, identify this English mathematician, whose namesake algebra is fundamental to the study of computer science.

Ans: George Boole

15. The losing general Stossel had actually be removed from command but had concealed the order from his staff. One Russian force was defeated at Nanshan cutting off the supplies for those in the city, but after initial attacks were beaten off, the Japanese captured 203-Metre Hill on December 5. From this position, a wedge was inserted into the Russian lines and the city surrendered less than a month later. FTP, identify this battle of the Russo-Japanese war.

Ans: Port Arthur

16. After he began to sell his invention, hand workers fearing unemployment broke into his house and smashed his creations. He finally received a patent for the idea in 1770, and with partner Thomas James, he built a small mill in Nottingham to make yarn for hosiers. FTP, name this English inventor, who named his multiple-spindle weaving machine after his daughter Jenny.

Ans: James Hargreaves

17. His early ambition was to be a painter and he spent his adolescence sketching the abundant ghetto life

of New York City. Turning to sculpture in 1905, he created a scandal with his Strand Statues for the British Medical Association Building, and he also raised eyebrows with a debauched angel for the tomb of Oscar Wilde. FTP, identify this sculptor, knighted in 1954, who is best known for *The Rock Drill*, *Ecce Homo*, and *St. Michael and the Devil*.

Ans: Sir Jacob Epstein

18. The stories in "The Four Branches" date to the 11th century, and it is in these stories that the collection's title appears for the first and only time. Consisting of eleven stories overall, the tales involving Owain, Geraint, and Peredur, son of Efrog parallel the French romances of Yvain, Erec, and Perceval composed by Chretien de Troyes. FTP, identify the name attributed by scribal error to this collection of Welsh tales.

Ans: Mabinogion

19. The influence of Zola and Maupassant on her writing is evident in a daring work, *The Storm*, a sequel to *At the 'Cadian Ball*. Her first novel, *At Fault*, was published in 1890, but she did not receive fame until her second work, a collection of stories about rural Louisiana life. A second collection of stories, *A Night in Acadie*, was published three years later with success, but today she is most famous for a controversial novel about the sensualist Edna Pontellier. FTP, identify this author of *The Awakening*.

Ans: Kate Chopin

20.

In accordance with the wishes of Ethelheard, Archbishop of Canterbury, he excommunicated Eadbert Praen for seizing the throne of Kent, and withdrew the pallium which had been granted to Litchfield. Becoming Pope on the very day his predecessor was buried, soon after he was attacked by a group of men who tried to gouge out his eyes and tear out his tongue, thus making him temporarily ineligible for the see. FTP, identify this pope who crowned Charlemagne Holy Roman Emperor in 800 AD.

Ans: Leo III

21. Wagner described the average libretto of this man as a "monstrous motley, [a] sentimental humbugging dramatic hodge-podge" even though as music director for the king of Prussia in 1842 he prompted the production of Wagner's *The Flying Dutchman*. Influencing Verdi's *Don Carlos* and *Aida*, his final opera *L'africane* was in rehearsal at the time of his death in 1864. FTP, identify this composer who gained fame with his first French opera, *Robert le Diable*, maybe best known for *Les Huguenots*.

Ans: Giacomo Meyerbeer

Bonuses

1. Given the composer, give the nickname of his 3rd symphony FTSNOP.

(5) Felix Mendelssohn

Ans: Scottish

(10) Robert Schumann

Ans: Rhenish

(15) Pyotr Tchaikovsky

Ans: Polish

2. Identify the following characters from the *Odyssey* 5-10-15.

(5) This is Odysseus' son who goes to Pylos to find out about his father, and later plots with him to kill the suitors.

Ans: Telemachus

(10)

FTP, along with Eurymachos, this son of Eupeithes was one of the two leading suitors.

Ans: Antinous

(15)

F15P, this faithless swineherd attacks Odysseus on the road and later gives weapons to the suitors to fight with Odysseus. He is punished by having his nose, ears, hands, and feet cut off and his genitals are fed to the dogs.

Ans: Melanthios

3.

Identify these things from Gabriel Garcia Marquez' *One Hundred Years of Solitude* FSNP.

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5) Identify the fictional town in which the story takes place.

Ans: Macondo

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10) Give the name of the first person born in Macondo, a clairvoyant and prophetic military officer.

Ans: Colonel Aureliano Buendia

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15) Give the name of the mysterious gypsy who brings all kinds of trinkets to Macondo. His parchment turns out to be the history of Macondo written in Sanskrit.

Ans: Melquiades

4. Answer the following about a branch of optics FTPE.

a. In 1947, British scientist Dennis Gabor developed this theory while trying to improve the resolution of electron microscopes. He named it after the Greek words for "whole" and "message."

Ans: hologram

b. To accurately preserve the image of a standing wave pattern, this type of light source is required, one example of which is a laser.

Ans: coherent source

c. In order to produce a 3D hologram, these must be produced by diffraction through a thick emulsion, which determines where the greatest intensity of light occurs.

Ans: Bragg planes

5. Identify the following French military and political figures during WWI FTPE.

a. Known as "Victor of the Marne," he was stripped of his command after being caught unprepared at Verdun.

Ans: Joseph-Jacques-Cesaire Joffre

b.

Promoted over many superior officers after his brilliance at Verdun, this commander replaced Joffre, but after his failure on the Aisne front he was transferred to North Africa.

Ans: Robert-Georges Nivelle

c.

He replaced Nivelle and restored order to the French army. Under him the French armies participated in the victorious campaign of 1918 which was masterminded by Marshal Foch.

Ans: Henri-Philippe Pétain

(pay-TAN)

6. Identify the following US Supreme Court cases of the 20th century FTPE.

a. In this 1905 case, the court declared that the state could not regulate hours of bakery workers.

Ans: *Lochner v. New York*

b.

In this 1936 case, the Supreme Court took the initiative to declare the AAA unconstitutional.

Ans: *Butler v. U.S.c.* This 1963 case declared that defendants in all felony cases are entitled to legal council.

Ans: *Gideon v. Wainwright*

7.

Identify these poems of Wallace Stevens from lines FTPE.

a. "She dreams a little, and she feels the dark Encroachment of that old catastrophe, as a calm darkens

among water-lights.”

Ans: Sunday Morning

b. “Take from the dresser of deal, Lacking the three glass knobs, that sheet On which she embroidered fantails once And spread it so as to cover her face.”

Ans: The Emperor of Ice-Cream

c. “Music is feeling, then, not sound; And thus it is that what I feel, Here in this room, desiring you.”

Ans: Peter Quince at the Clavier

8. Identify these important female biologists FSNP.

(5) Employed for 16 years with the U.S. Fish and Wildlife Service, she wrote three books on marine biology before her famous 1962 work on environmental degradation.

Ans: Rachel Carson

(5) Her work on the genetics of maize led to a Nobel Prize for the discovery of transposons.

Ans: Barbara McClintock

(5) Encouraged by Louis Leakey, she engaged in research from her base at the Karisoke Research Center until being murdered in 1985.

Ans: Dian Fossey

(15) The most recent female recipient of the Nobel Prize in Medicine, this German shared the prize with Americans Edward Lewis and Eric Weischaus for their studies in embryonic development.

Ans: Christiane Nusslein-Volhard

9.

Identify the following about the International School of architecture FTP.

a. He was one of the men who coined the term internationalism. He is known for designing the “Glass House” at New Canaan, Connecticut, the New York City AT&T headquarters, and the IDS Center in Minneapolis.

Ans: Philip Johnson

b. He cowrote *The International Style: Architecture Since 1922* with Philip Johnson in 1932 in which the term was coined.

Ans: Henry-Russell Hitchcock

c. This architect of the International Style designs are most clearly identified with glass-and-steel skyscrapers such as the Lake Shore Drive Apartments and the Seagram Building jointly with Philip Johnson.

Ans: Mies van der Rohe

10. Although it's been censored by her record company, it can never be erased from the Canadian

consciousness. FTPE, answer these questions about the pre-Jagged Little Pill career of Alanis Morissette.

a. Starting at the age of 11, she frequently had green slime dumped on her as a member of the cast of this Nickelodeon show.

Ans: You Can't Do That on Television

b. Perhaps the best-known single of Alanis' early career was this debut single of her self-titled album, which was nominated for the 1991 Juno for Single of the Year.

Ans: Too Hot (to Hold)

c. This current Friends cast member once dated Alanis and appeared in the video for "Walk Away."

Ans: Matt Leblanc

11. Identify the following pre-Norman rulers of England FTPE.

a. He was the son of Sweyn Forkbeard and became undisputed king upon the death of Edmund Ironside.

Ans: Canute the Dane

b. His epithet actually meant "evil council." Son of Edgar, his authority was undermined by suspicions that he had had a hand in the assassination of his brother.

Ans: Ethelred II or Ethelred the unready

c. The first West Saxon king to have control over all of England, he was elected upon the death of his father Edward the Elder.

Ans: Athelstan

12. Identify people and works associated with John Maynard Keynes FTPE

a. This is Keynes' most famous work, in which he advocated that the remedy for recession is government sponsored full employment.

Ans: *General Theory of Employment, Interest, and Money*

b. In this work, Keynes expresses public protest at the Versailles peace conference. He argues that German war reparations will never be paid off, and writes scathing depictions of Wilson, Clemenceau, and Lloyd George.

Ans: *Economic Consequences of the Peace*

c. This is Keynes' teacher at Cambridge, a leading economist of his day who wrote such works as *Principles of Economics*, *Industry and Trade*, and *Money, Credit and Commerce*.

Ans: Alfred Marshall

13. Answer the following related to circuit theory FTPE.

a. Stated generally, it indicates that the current density is proportional to the electric field strength; however, for circuits it can be written as a relationship between voltage, current, and resistance.

Ans: Ohm's Law

b. The phasor transform indicates that this common circuit element, which acts as a short circuit to DC currents, produces a positive 90 degree phase shift for AC currents.

Ans: inductor

c. This principle can be used to determine the properties of a circuit containing both AC and DC sources by considering one power source at a time, and adding together the currents and voltages that occur as a result of each source.

Ans: superposition

14. [MD House] Answer the following questions on a 5-10-15 basis.

(5) For 5 points, this is the branch of philosophy that addresses the philosophical problems surrounding the theory of knowledge.

Ans: epistemology

(10) This philosopher of science wrote *The Structure of Scientific Revolutions*.

Ans: Thomas Samuel Kuhn

(15) His profoundly negative philosophy indicated that nothing exists; if anything does exist, it cannot be known;
and if anything exists and can be known, it cannot be communicated.

Ans: Gorgias

15. Answer these questions about the Viking exploits in North America FTPE.

a. After killing a neighbor in a quarrel, he was banished from Iceland for three years. Exploration of the sea ensued, and in 982 he reached Greenland.

Ans: Eric the Red

b. Described as containing "fields of self-sown wheat", this colony was founded by Leif Ericsson near the Strait of Belle Isle in Newfoundland.

Ans: Vinland

c. He also established a colony of Icelanders near Vinland, but it was abandoned because of hostile Eskimos; his son Snorri was the first European child born in North America.

Ans: Thorfinn Karlsefni

16. Identify the author from works: 30-20-10

(30) *The Victim, More Die of Heartbreak, The Bellarosa Collection*

(20) *Dangling Man, The Dean's December, Mosby's Memoirs*

(10) *Seize the Day, Henderson the Rain King*

Ans: Saul Bellow

17. Answer the following related to solar eclipses, FTPE.

a. This phenomenon occurs just before totality is reached because the moon's surface is uneven and thus an arc of bright spots is formed.

Ans: Baily's Beads

b. Solar eclipses are important to astronomers because this lowest layer of the solar atmosphere can be studied while the ordinarily visible part of the sun is hidden.

Ans: chromosphere

c. This term is used to describe a spectrum observed just after a solar eclipse reaches totality or just before totality ends. It is used to provide information about the chromosphere.

Ans: flash spectrum

18. Given a nation in North or South America, identify the indigenous American language most commonly spoken there for the stated number of points FTPE.

a. United States

Ans: Dine or Navajo

b. Canada

Ans: Cree (accept Western Cree, the most common dialect)

c. Paraguay

Ans: Guarani

19. Identify these people associated with Theseus, FSNP.

(5,5) Theseus abandoned one daughter of Minos, and married another. FFPE name these women.

Ans: Ariadne and Phaedra

(5) FFP, name Theseus's son by an Amazon queen, whom he had killed under the mistaken belief that he raped his wife, driving her to suicide.

Ans: Hippolytus

(15) F15P, name the friend of Theseus whose attempt to kidnap Persephone lands Theseus in the underworld until rescued by Heracles.

Answer:

Ans: Peirithous

20. Identify the following works of Gustave Courbet FTPE.

a. This work features many people milling about as a small boy, a cat, and a nude woman watch an artist paint a landscape.

Ans: *The Painter's Studio* or "A Real Allegory Summing up Seven Years of My Artistic and Moral Life"

b. This painting, inspired by his native countryside is a huge work featuring 40 life-size peasants at a funeral. The priest at the center of the work divides the painting between clergy and lay people.

Ans: *Burial at Ornans*

c.

It is a realistic rendering of two figures doing menial labor in a barren, rural setting.

Ans: *Stone Breakers*