

**Vanderbilt Quiz Bowl  
Fall Collegiate Invitational**

**Round 8**

**Tossups**

1. For glass in air, it is equal to 57.5 degrees. It is defined as the inverse tangent of  $n_2/n_1$  (read:  $n$  sub 2 divided by  $n$  sub 1), and a wave that hits at this (\*) angle will have its **E** vectors perpendicular to the plane of incidence. FTP, if a wave strikes a boundary at this angle, it will be fully polarized.

**Answer:** (Sir David) Brewster angle

2. It took place in the Gulf of Patras, and six galleasses – a new, large gunboat design – were the deciding factor. After winning the right flank early on, Uluç (\*) Ali Pasha escaped with only 40 galleys after being whopped by Don John. Cervantes was injured in, FTP, what 1571 Austro-Turkish naval battle?

**Answer:** Battle of Lepanto

3. This 42-year-old Air Force colonel had to deal with a difficult launch that nearly saw a damaged electrical wire cut off its main engine computers, and three tubes in the right engine nozzle rupture. Nonetheless, (\*) the Chandra X-ray Observatory was successfully launched and the whole Columbia crew returned safely. FTP, identify the first female mission commander in NASA history.

**Answer:** Eileen Collins

4. It contains the Molyneux problem, which asks whether a blind man suddenly blessed with sight could, with only that sense, tell a cube from a sphere. Book I of this (\*) 1689 work attacks innate knowledge, while Book II brings up the famous idea of “tabula rasa.” FTP, name this essay by John Locke.

**Answer:** Essay Concerning Human Understanding

5. Its nave is in the “ogival” style, and only the southwest tower and west portal survive from the original building founded by Bishop Fulbert in the (\*) 11<sup>th</sup> century. Built in three tiers, plans for five huge towers were abandoned and the money reallocated to create beautiful stained-glass rosettes. FTP, name this Gothic cathedral in France.

**Answer:** Chartres cathedral

6. Born in Scotland, he was commissioned by the earl of Bellomont to protect merchants in the Red Sea. After a small mutiny off the coast of Madagascar, he began to work under his own command, returning to the (\*) West Indies in 1699 and then sailing to his native New York with the Armenian *Quedagh Merchant* in tow. FTP, name this notorious pirate.

**Answer:** “Captain” William Kidd

7. Voted one of Time Magazine’s “50 Most Beautiful People in the World” in 1998, her mother won a decision in the Indian Supreme Court that allowed Christian women to inherit property. Her most famous work, a Booker-Prize winner, (\*) focuses on twins Rahel and Estha and the death of their English cousin, Sophie Mol. FTP, what Indian author wrote the *The God of Small Things*?

**Answer:** Arundhati Roy

8. From the Greek for “to show side by side,” the word was popularized by Thomas Kuhn in his 1962 book *The Structure of Scientific Revolutions*. (\*) As he used the word, it encompassed both the expectations concerning a problem and the methods used to solve that problem. FTP, what is a set of assumptions accepted by a community?

**Answer:** paradigm

9. “Penguins are habit forming” this scientist said about his Antarctic studies. On the theoretical front, he distinguished three unique forms of evolution: (\*) speciation, phyletic evolution, and quantum evolution. FTP, name the discoverer of the fifteen-inch high “dawn horses.”

**Answer:** George Gaylord \_Simpson\_

10. **Only represented in Scandinavian myth, not German, he had teeth made of solid gold. He found and returned Freyja's necklace after Loki stole it by using his acute senses of smell and (\*) sight.** FTP, name the seldom-sleeping guardian of the Bifrost bridge, the Norse god of light.

**Answer:** \_Heimdall\_

11. **The term first appeared in print in an 1895 issue of the *Yale Record*, but credit for its creation usually involves spelling-impaired cartoonist Tad Dorgan and Harry Stevens, (\*) head concessionaire at the Polo Grounds. Nathan's and Vienna currently split the market in, FTP, what food item that looks suspiciously like a dachshund?**

**Answer:** \_hot dog\_ (prompt on one of them funny foreign names for the 'dawg)

12. **The Touchwood Hills dominate the center of the region, while the northern part contains many lakes, including Lake La Roche, (\*) Frobisher Lake, Churchill Lake, and Lac Ile-de-la-Crosse. FTP, name the Canadian province between Manitoba and Alberta.**

**Answer:** \_Saskatchewan\_

13. **Reissner's membrane and the basilar membrane separate it into three sections, including the (\*) vestibular and tympanic canals. In the innermost canal, several hair cells hold the rigid tectorial membrane over the organ of Corti. FTP, name the coiled, snail-looking part of the inner ear.**

**Answer:** \_cochlea\_

14. **Gen. George Napier, the same man who had ten years before ended the practice of suttee (widow burning) in the Sind, put down a rebellion instigated by this group in 1839. Its primary leaders were William (\*) Lovett and Feargus O'Connor. FTP, name these list-making reformers of the English working class.**

**Answer:** \_Chartist\_ movement

15. **He wrote a series of Spanish overtures, including *Souvenirs of Castile* and *Memory of a Summer Night in Madrid*. *Kamarinskaya* deals with themes closer to home – those of the (\*) southern Slavs – but he didn't gain great fame until he published the opera *A Life for the Tsar*. FTP, name the first Russian 'nationalist' composer.**

**Answer:** Mikhail Ivanovich \_Glinka\_

16. **His grasp of medicine was more than a bit suspect – to "fix" his enlarged liver, he drank heavily and proceeded to die of liver cancer. Employed at the New York literary magazine *The Seven Arts*, his (\*) books include *The Madman* and *The Broken Wings*. FTP, name this Lebanese author best known for *The Prophet*.**

**Answer:** Khalil \_Gibran\_

17. **His marriage to Ms. Laetitia Snaps proves unsatisfactory, as she's more interested in his henchman Fireblood. Methodically evil, he destroys both fellow crook Count la Ruse (\*) and the kind jeweler Heartfree. FTP, name this GREAT title villain of a book by Henry Fielding.**

**Answer:** *The Life of \_Jonathan Wild\_ the GREAT*

18. **The young nation's decision to execute 5 nationalists previously pardoned by Queen Elizabeth prompted Sir Humphrey Gibbs' attempt to regain royal control but, according to local courts, (\*) Ian Smith held both de-facto and de-jure power. FTP, what nation seceded in 1965 from British Nyasaland?**

**Answer:** \_Rhodesia\_ (prompt on: \_Zimbabwe\_)

19. **Originally based in the Brewster Housing Project, it dropped to a threesome after Barbara Martin left the group in 1962. First known as "The Primettes," (\*) their hits include "When The Lovelight Starts Shining Through His Eyes" and "I Hear A Symphony." FTP, name this Motown group headed by Diana Ross.**

**Answer:** The \_Supremes\_

20. Barium – green; potassium – lilac; strontium – red; calcium – brick red; sodium (\*) – yellow. These are some of the more common results from this simple detection method used to identify metallic ions. FTP, give the name for the test involving a solution, a platinum wire, and a Bunsen burner.

Answer: \_flame\_test

21. One man holds a spear in case the struggling central figure escapes the clutches of the two men who bind him in iron chains. A horse is visible in the (\*) dark recess of the upper left, while, in the center, Delilah makes her escape. FTP, name this painful-looking biblical scene by Rembrandt.

Answer: The \_Blinding of Samson\_

22. Its securities division ran out of cash in early October, prompting a buyout by its creditors. This was only one of a series of moves that left it stripped of all but 6 of its (\*) 25 business units. It did keep its heavy industry and auto branches. FTP, what was formerly the second-largest business in South Korea?

Answer: \_Daewoo\_

23. Nicknamed “the young Archimedes” as a youth, he created the first book on probability – *On Reasoning in Games of Chance* – at the request of a friend. He explained (\*) centrifugal force as it related to pendulums – a topic that he, as a clockmaker, knew much about. FTP, name this early Dutch proponent of the wave theory of light.

Answer: Christiaan \_Huygens\_

24. He changed his name to cement a bond between the Severi and the Antonines, but is commonly known by the nickname derived from his French-style (\*) coat. After murdering his brother, he built a huge bathhouse in the capital. FTP, whose 212 AD edict extended Roman citizenship to all free inhabitants of the empire?

Answer: \_Caracalla\_ (or: Septimius Bassianus) (or: Marcus Aurelius Severus Antoninus)

25. “Looking, then, at the common law, ... , we find that when private property is affected with a public interest, it ceases to be *juris privati* only.” So wrote Chief Justice C. J. Waite in (\*) this grain-elevator price-fixing case. FTP, name the Supreme Court case involving state regulation of railroad firms.

Answer: \_Munn\_ vs. Illinois

26. Bildad the Shuhite, Zophar the Naamathite, and Eliphaz the Temanite come to comfort him after he was (\*) stricken with boils on his feet. He also endured five other temptations as the pawn of a celestial game between God and Satan. FTP, name the sorely tried man and you’ve named the Old Testament Book.

Answer: (Book of) \_Job\_

27. By her own count, she’s slept with 20 % of her male costars – however, no word yet on her luck with Jim Beaver, her possibly lucky coworker in the upcoming *Where the Heart Is*. Often seen in some sort of University (\*) of Kentucky apparel, she starred in both roles in the 1996 TV movie *Norma Jean and Marilyn*. FTP, name the star of *Kiss the Girls*.

Answer: Ashley \_Judd\_

28. This Victorian author was infatuated with prostitute Nell Harrison, and made his name with depictions of slum life like *The Nether World*. (\*) His parody of the upper aristocracy, *The Whirlpool*, and the novel *Born in Exile* are among his finest. FTP, name the author of *The Odd Woman* and *New Grub Street*.

Answer: George \_Gissing\_

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Bonuses

1. FTP each:

This opera was Wagner's second take on a class of German vocalists – the first being *Tannhäuser*.

**Answer:** *Die Meistersinger von Nürnberg* (accept: *The Mastersingers of Nuremberg*)

This shoemaker-turned-poet was the central character of Wagner's opera.

**Answer:** Hans Sachs

This Berliner wrote an opera on the same story entitled *Hans Sachs*, as well as the more popular *Tsar and Carpenter*.

**Answer:** Albert Lortzing

2. FTP each:

This psychological system is based on the premise that the whole is greater than the sum of its parts.

**Answer:** Gestalt

This Swarthmore professor applied Gestalt principles to his study of apes in the Canary Islands.

**Answer:** Wolfgang Köhler

The founder of Gestalt psychology, he applied Gestalt ideas to visual stimuli – the so-called “phi phenomenon.”

**Answer:** Max Wertheimer

3. FTP each, given a location, name the soap that takes place there.

Salem

**Answer:** *Days of Our Lives*

Bay City

**Answer:** *Another World*

Pine Valley

**Answer:** *All My Children*

4. Answer these questions about a common hydrocarbon, 5-10-15.

5 – Name the colorless liquid hydrocarbon with formula  $C_6H_6$ .

**Answer:** benzene

10 – Identify the two resonance structures named for the German chemist who determined benzene's structure.

**Answer:** Kekulé structures

15 – These three resonance structures have the two single-bonded carbon atoms on the opposite sides of the benzene ring.

**Answer:** Dewar structures

5. Answer these questions about Arabian dynastic rule FTP each.

This dynasty led the Arab world from Damascus until 750.

**Answer:** Umayyads

Bored after a defeat at Constantinople in 717, the Umayyads commanded an attack on France that led to this disastrous defeat at the hands of Charles Martel.

**Answer:** Battle of Tours

Eighteen years later, fallout from that defeat caused the Umayyads to be replaced by this Baghdad dynasty.

**Answer:** Abbasids

6. FTP each:

This Celtic hero's real name was Sétanta. The guardian of Ulster, he knew how to solve problems – violence.

**Answer:** Cú Chulainn

He got his nickname when he killed this creature, owned by a blacksmith.

**Answer:** watch dog or hound or equivalent

Give the term for the ritual injunctions that eventually combined, when all broken, to lead to his death.

**Answer:** geis (singular) or geasa (plural)

7. Answer the following questions about a common biological process, 5-10-15.

For 5, this is the rise in body temperature in response to an infection.

**Answer:** fever

For 15, these are the substances derived from bacteria or viruses that trigger the onset of a fever.

**Answer:** pyrogens

For 10, these parts of the immune system are triggered by pyrogens and then release interleukins.

**Answer:** macrophages

8. FTP each:

Who wrote the 1658 poem *Heroic Stanzas*?

**Answer:** John Dryden

He wrote the poem about this recently deceased British leader.

**Answer:** Lord Protector Oliver Cromwell

The same month, Swedish poet Georg Stiernhielm, under the influence of French neoclassicism, released an epic about this Greek hero.

**Answer:** Hercules

9. Answer these questions about mob history from 1957 FTP each.

Thugs working for Vito Genovese shot this gangster while he got a haircut at the Park Sheraton Hotel.

**Answer:** Albert Anastasia

Anastasia headed this freelance crime syndicate.

**Answer:** Murder Inc.

This man's home, site of a big-time mob meeting, was raided by federal investigators.

**Answer:** Joe Babara

10. 5, 10, 15 – answer these questions about an island nation.

5 – This island nation lies across the Mozambique Channel.

**Answer:** Democratic Republic of Madagascar

10 – This central city is its capital.

**Answer:** Antananarivo

15 – This people of Indonesian descent, who founded powerful 17<sup>th</sup> century monarchy, primarily live near the capital.

**Answer:** Merina

11. FTP each, answer these questions about the history of the North American oil industry.

Oil was found for the first time in the U.S. at this Pennsylvania city in 1859.

**Answer:** Titusville

This man led the Titusville oil team.

**Answer:** "Colonel" Edwin Laurentine Drake

A strike in this Ontario city preceded Titusville by two years, and still produces small amounts of fuel.

**Answer:** Petrolia

12. Answer the following questions about energy, 5-10-15.

5 – What is the SI unit of energy?

**Answer:** joule

10 – Give the formula for kinetic energy at low speeds.

**Answer:**  $K = \frac{1}{2}mv^2$

15 – Give the formula for kinetic energy at very high speeds.

**Answer:**  $K = mc^2(1/\sqrt{1-(v/c)^2} - 1)$

13. FTP each, answer these questions about Zoroastrianism.

This Indian group of Iranian exiles is the largest practicing Zoroastrian people.

**Answer:** Parsi

Including the *Gathas* – the hymns of Zoroaster – this book is the religion's most sacred text.

**Answer:** Zend- Avesta

This concept, symbolized by the sacred fire, is central to Zoroastrian thought.

**Answer:** Asha

14. FTP each, ID these people or events from the War of the Roses.

This 1485 battle was the war's climactic fight.

**Answer:** Battle of Bosworth Field

This dynasty took over after the victory at Bosworth Field.

**Answer:** Tudor

After Henry Tudor put down the revolt of Lambert Simnel, who claimed to be the nephew of Edward IV, he had to deal with this Flemish impostor, who claimed to be Richard, Duke of York.

**Answer:** Perkin Warbeck

15. FTP each, identify these players at the June 29<sup>th</sup>, 1999 attempts to end the Congolese civil war.

The embattled leader of the nation, his tenuous grip on power was loosened by his continued support of radical Hutu militias.

**Answer:** Laurent Kabila

The President of Zimbabwe, he sent troops to Kabila's aid so as to protect his personal investments in the Congo.

**Answer:** Robert Mugabe

This nation sent troops north into the Congo despite a renewal of its own fight against UNITA rebels.

**Answer:** Angola

16. For fifteen points each, identify these unrelated authors.

This sci-fi legend's best works are *The Man in the High Castle* and *Do Androids Dream of Electric Sleep*.

**Answer:** Phillip K. Dick

This South African novelist, born to an insane white mother and a black stablehand, is best known for *When Rain Clouds Gather* and *Serowe*.

**Answer:** Bessie Head

17. Given an ice hockey goalie, name his present team (either the city or the nickname is ok) FTP each.

Mike Vernon

**Answer:** San Jose Sharks

Damian Rhodes

**Answer:** Ottawa Senators

Bill Ranford

**Answer:** Edmonton Oilers

18. FTP each, name these leaders of the USSR whose time in power was quite brief.

He was First Secretary for only a month after Stalin's death before yielding to Nikita Khrushchev, and only held onto the Premiership for another 2 years.

**Answer:** Georgi Maksimilianovich Malenkov

He took over in as Premier in 1955 but fell three years later when Khrushchev withdrew his support.

**Answer:** Nikolai Aleksandrovich Bulganin

This hard-line former KGB chief's kidneys only held out for 15 months in the early 1980s.

**Answer:** Yuri Vladimirovich Andropov

19. Name these architects involved in the planning of the new St. Peter's in Rome FTP each.

The creator of the Tempietto, he laid out the original design and laid the foundation.

**Answer:** Donato Bramante (Donato di Pascuccio)

This famed artist eventually took over and designed the crowning dome.

**Answer:** Michelangelo di Bartolommeo



Michelangelo got the job to finish Bramante's work after this man's plan – a terrible monstrosity that would have destroyed the Sistine Chapel for an incredibly ugly ambulatory – was abandoned.

**Answer:** Antonio da Sangallo the Younger

20. Given a trig identity, give the sign FTP each.

$1/2 - 1/2 \cos(2x)$

**Answer:**  $\sin^2 x$

$2 \sin x \cos x$

**Answer:**  $\sin(2x)$

$(\tan x + \tan y) / (1 - \tan x \tan y)$

**Answer:**  $\tan(x + y)$

21. Give the answers to these questions about a French philosophical movement FTP each.

While not suffering from recurring bouts of mental illness or developing the field of sociology, this 19<sup>th</sup> century philosopher actually did some philosophizing!

**Answer:** Auguste Comte

This philosophy developed by Comte goes beyond empiricism to deny the possibility of knowledge of unobservable physical things.

**Answer:** positivism (do not accept: logical positivism)

The founder of the *Revue Occidentale* and popularizer of positivism, he was Comte's foremost student.

**Answer:** Pierre Laffitte

22. Name these Greco-Persian battles, 5-10-15.

5 – 1,000 troops under the Spartan Leonidas briefly held a mountain pass in this 480 “battle.”

**Answer:** Battle of Thermopylae

10 – This naval battle, in the Saronic Gulf, was among the greatest victories for Themistocles and the Greeks.

**Answer:** Battle of Salamis

15 – The Spartan Pausanius used shifting defensive positions to defeat Mardonius and the Persians in this battle, almost a year later.

**Answer:** Battle of Plataea

23. Name these technological improvements of 1946 FTP each.

Willard Frank Libby introduced this dating technique.

**Answer:** carbon-14 dating (prompt on: radiocarbon dating)

The power requirements of this early computer, built by John Mauchly and John Eckert, caused a power shortage in a nearby town.

**Answer:** ENIAC

The first artificial event of this type was caused by New York native Vincent Schaefer and a large quantity of dry ice.

**Answer:** snowfall (accept equivalents, prompt on rainfall or similar)

24. FTP each, give these related economic terms.

This type of investment pools investors' money to invest in a variety of securities.

**Answer:** mutual fund

This type of mutual fund invests only in short term securities, and keeps its net asset value per share at \$1.00

**Answer:** money market fund

This is the measure of the residual risk of a mutual fund in relation to the market.

**Answer:** alpha

25. Identify these percussion-oriented bands for fifteen points each.

This Pittsburgh group's best songs include “Send Me on My Way” and “Cat Turned Blue.”

**Answer:** Rusted Root

Although all their music is released in the Gitane dialect, this French band has had several U.S. hits, including “Bamboleo.”

**Answer:** \_Gipsy Kings\_

26. Name these photographers of the Great Depression era FTP each.

From the urban *White Angel Bread Line* to a famous photo of a broken-down Dust Bowl itinerant, she exemplifies Depression-era photography.

**Answer:** Dorothea \_Lange\_

A *Life* photographer, she was the first woman to be an accredited war correspondent with the U.S. troops and took the famous photo of Ghandi at his spinning-wheel.

**Answer:** Margaret \_Bourke-White\_

This New Yorker was awarded the rights to document the construction of the Empire State building.

**Answer:** Louis \_Hind\_

27. Identify these interestingly named SE Asian bodies of water FTP each.

It lies between the island containing Surabaya and Jakarta and Borneo.

**Answer:** \_Java\_ Sea

This inlet of the Flores Sea juts into the island of Celebes.

**Answer:** Gulf of \_Bone\_

It is located between the Philippines and Borneo.

**Answer:** \_Sulu\_ Sea

Category	TU	BO	First 20	TU	BO	Last 9
History	4	2	4	1		1
Science	4	2	4	1		1
Literature	3	1	3	1		1/0
Trash	2	1	2	1		1
RPM	2	1	2			1
Art	1		1	1		1
Music	1	1	1			
Social Science	1	1				
Geography	1	1				
Class Trash		1				
CE	1	1	1	1		