

TOSSUPS – MIT**SWORD BOWL 2004 -- UT-CHATTANOOGA**

Questions by Ting Ting Fu, Ahmed Ismail, Wei-Han Bobby Liu, Anisa Schardl, Mark Seifter, Steven Sivek, Peter Stone, and Mike Usher with a little help from CWRU, Bryn Mawr, and Boston University

1. The final portion, written in an insane asylum, was the only part to remain wholly unchanged by the editor. Originally entitled "He Do the Police in Different Voices," it was dedicated to the author's friend and editor, "*il miglior fabbro*," Ezra Pound. Mrs. Porter and the Smyrna merchant appear in—for 10 points—what five-part poem by T.S. Eliot whose final line is "Shantih shantih shantih," which begins "April is the cruelest month?"

Answer: The Waste Land [do not accept "*The Waste Lands*"]

2. In 2000, biologist Kingsley R. Stern separated this into two separate kingdoms. His two kingdoms, the Eubacteria and the Archaeobacteria are similar to the two divisions within the original kingdom, Division Eubacteriophyta and the Division Cyanophyta. FTP, name this biological kingdom which contains true bacteria.

Answer: Kingdom Monera

3. The opera was written just before the composer died in 1791; it is full of the ideas of Freemasonry that Haydn had introduced the composer to, for example, the idea of the autonomy of the individual and the pyramid with an all-seeing eye. However, co-librettist and theater director, Emanuel Schikaneder, made sure that the Masonic ideals didn't get in the way of good theater. FTP, name this opera by Mozart that features the titular musical instrument.

Answer: The Magic Flute (or Die Zauberflöte)

4. He left his family after the death of his father at age eleven and worked for Majors and Waddell, where he served as a messenger boy. However, it was in 1868 that he received his claim to fame, serving as scout for the U.S. Fifth Cavalry. Thanks to his gift for self-promotion, his exploits and conflicts with Indians became legends in his own time, inspiring books and plays, in some of which he starred himself. FTP, name this man, the creator of the *Wild West Show*, nicknamed "Buffalo Bill".

Answer: William Cody

5. Irrational numbers in which all finite strings of digits of a given length occur with equal frequency. Topological spaces in which, given any two disjoint closed sets, one can find open neighborhoods of those sets which are also disjoint. Subgroups whose left co-sets equal the corresponding right co-sets. Matrices which commute with their conjugate transpose. A class of random distributions. For 10 points—what adjective describes these mathematical constructs, and can also mean "perpendicular?"

Answer: normal

6. Dissent was growing due to such events as the forcible ending of a dynasty and fear that the people would be forcibly converted to Christianity. Men in the employ of the British East India Company were forced to serve overseas, losing their caste in the process, and forced to use rifle cartridges alleged to contain cow and pig fat. Fighting ensued, and despite setbacks such as devastating losses at Kanpur, the British claimed victory by 1859. FTP, name this conflict which led to reform of the British control of India.

Answer: Sepoy rebellion or mutiny

7. Abraham anachronistically invokes the Trinity in one of these works which originated in Chester. Their survival is curious, as they were banned by Henry VIII; most surviving examples, though, have the bishop of Myra or the Virgin Mary as their subjects. Evolving from tenth- and eleventh-century liturgical services, by the 13th century, they were commonly performed at public festivals. For 10 points—name these medieval European vernacular dramas.

Answer: mystery plays [accept miracle plays, although according to the *Oxford Companion to English Literature*, "mystery plays" is the preferred term.]

8. It has eight stable isotopes, all with mass numbers between 120 and 130. It increases resistance to corrosion when added to magnesium-manganese and lead alloys, and aids in the manufacture of stainless steel. Discovered in 1782 by Franz von Reichenstein, it burns blue-green in oxygen, and is mined chiefly from ores of copper, lead, gold, and bismuth. FTP name this brittle crystalline solid, the fourth member of the chalcogen family, located directly below selenium.

Answer: Tellurium

9. Once the director of UNESCO's translation bureau, this prolific author's output includes translations of Goethe's *Faust* and Dante's *Divine Comedy*, as well as the lyric epic *Odyssey*, a 33,333-line sequel to Homer's original. A student of law and philosophy, he was a minister in the Greek government. For 10 points—name this author of *The Last Temptation of Christ* and *Zorba the Greek*.

Answer: Nikos Kazantzakis

10. He's had many get-rich-quick schemes over the years; his most recent is to open up a gaming company where he stole game ideas from his friends and then released a package of 200 games where each one lasts about 5 seconds. His first plan was to steal the castle of his nemesis by removing the six golden coins that protected it; however, just about all of his plots in between involve taking stuff from pirates. FTP, name this Nintendo character, the evil Mario.

Answer: Wario

11. For complete dominance, it can find the relative proportion of homozygous dominants and heterozygotes by knowing the proportion that is homozygous recessive. It also provides a framework to construct models to study evolutionary processes, particularly at the level of micro-evolution or genetic change in a population. FTP, name this principle of population genetics stating that the genotype frequencies and gene frequencies of a large, randomly mating population remain constant in the absence of immigration, mutation, and selection.

Answer: Hardy-Weinberg law

12. Father and son Owen and Eric seduce mother and daughter Sally and Becky 25 years apart using the same scheme. Russell dies during a botched brain surgery, while his son Jesse languishes in a mental hospital for 15 years. Russell's grandson and Sally's granddaughter conceive Allie, whom Owen's sleazy granddaughter wants to kidnap. Carnies, rabbits, and Eric Close are among the guises taken by alien visitors plaguing the Clarkes, Crawford, and Keys in—for 10 points—what Steven Spielberg miniseries?

Answer: Taken

13. Either the son of Hreidmar and the brother of Regin and Otter or a giant and brother of Fasolt, either way he killed a kinsman in order to become the sole possessor of the cursed Andvarinaut, which was given to his family by the Aesir as payment. FTP name this mythological figure who was slain by Sigurd with the sword Gram while in dragon form.

Answer: Fafnir

14. The battle began when Napoleon presented a weak right flank and evacuated the Pratzen Heights. His opponents responded with attacks along the northern road along the Satschan pond to the south. Lannes stopped Bagration in the north while Davout held on in the south, allowing Napoleon to retake the Pratzen Heights and attack the rear of his opponent. FTP name this battle, a crucial victory for Napoleon over Austria and Russia in 1805.

Answer: Austerlitz

15. His mother wrote under the pen name Speranza, and her translation of the German horror novel *Sidonia the Sorceress* would inspire some of his own darker writing. While imprisoned on charges brought about by his relationship with a son of the Marquis of Queensbury and the controversial themes discussed in his only novel, he wrote the poetic work *The Ballad of Reading Gaol*. FTP, name this Victorian playwright who penned such works as *Lady Windermere's Fan* and *The Importance of Being Earnest*.

Answer: Oscar Wilde

16. Kant believed it did not inhibit the development of reason, though Herder maintained it brings about a decisive change for rational creatures, comparing it to the development of a caterpillar into a butterfly. Socrates claimed, "the one aim of those who practice philosophy in the proper manner" is to practice for it—a quote recorded in *Phaedo* shortly before he experienced it. FTP name this event, the sickness unto which is the subject of a work by Kierkegaard.

Answer: death [accept word forms]

17. The protagonist of this novel is happier than she's been since she was nine, and her father died. She's disappointed though, to find Constantin is uninterested in taking her virginity. After a visit to a sanatorium to visit her boyfriend Buddy Willard, she breaks up with him, and stops bathing. Before long, she attempts suicide. For 10 points—name this novel whose protagonist, Esther Greenwood, is based on its author, Sylvia Plath.

Answer: *The Bell Jar* [accept Esther or Esther Greenwood before “novel”]

18. This organic compound was used for many years as the active ingredient in Ex-Lax. It has formula $C_{20}H_{14}O_4$, is clear in neutral solution, and contains three aromatic rings, as well as an ester group on a five member ring. In basic solution, however, one of the aromatic rings is reduced and the five member ring opens to form a carboxylate ion, turning the solution pink. For ten points, name this indicator which changes color in the pH range from 9 to 10.

Answer: Phenolphthalein

19. His pupils included Washington Allston, Charles Willson Peale, Gilbert Stuart, and John Singleton Copley. A royal stipend and the support of Sir Joshua Reynolds gave him the financial freedom to work independently of commissions, leading to such works as *The Sepulchre*, *The Demonic Boy*, and *The Golden Age*. However, his most famous work is a historical landscape. For ten points, identify this American-born painter of *The Death of General Wolfe*.

Answer: Benjamin West

20. After failing in law, he joined a religious sect and wrote a book on theology called *The Truth*. His new interest in writing and oration led him to make dozens of terrible unsolicited campaign speeches and would later fail him at his trial, where he attempted to save himself with one of the first high-profile insanity defenses but still received the death penalty on June 30, 1882. FTP, name this man who recited his last known poem, “I Am Going to the Lordy,” shortly before being hanged for the assassination of James Garfield.

Answer: Charles Guiteau

21. He was born in Eisleben, Germany, spent three years in an Augustinian monastery, and was ordained in 1507. He soon lashed out against the Catholic Church because of its sale of indulgences, and would go on to marry a former nun, Katharina von Bora. FTP, name this German reformer of the church, most famous for his 95 theses nailed to the door of the church at Wittenberg.

Answer: Martin Luther

22. It was given in 1786 to compensate for the ceding of a 1662 royal land grant; its western end was given to so-called “sufferers” to compensate settlers for losses suffered during the Revolutionary War. Most of this 120-mile-wide strip was sold to the Connecticut Land Company for 40 cents an acre; settlement began after surveying ended in 1796. In 1800 Connecticut ceded to the U.S. government, FTP, this territory whose name is preserved in a university in Cleveland?

Answer: Western Reserve

23. A function similar to, and named for, this function is used to define the determinant of an elliptic differential operator. It satisfies the Euler product formula; Hans von Mangoldt proved the relationship between the locations of its zeros and the distribution of prime numbers which its namesake had stated. The sum over all integers n of n to the minus s power—for 10 points—is what function, the subject of the celebrated Riemann hypothesis, named for the sixth letter of the Greek alphabet?

Answer: Riemann zeta function [prompt on “Riemann” on early buzz]

24. By putting powder on the doorbells of an apartment building, Parkis determines that the man he is looking for is Smythe, an atheist with a facial deformity which later miraculously disappears. Another miracle occurred in 1944, when the narrator appeared to have died in a bombing raid before his lover Sarah Miles asked God to spare him. FTP, name this novel in which Maurice Bendrix discovers the cause of the titular event, written by Graham Greene.

Answer: *The End of the Affair*

25. A rival of Lady Castlemaine, Frances Stuart, Louise de Keroualle, and others, she calmed an angry crowd around her coach who thought she was one of her Catholic counterparts by shouting, “Pray good people be civil, I am the Protestant whore” and entranced Samuel Pepys with her wit. FTP name this mistress of Charles II, who never received a title like her counterparts, but nevertheless won popular affection.

Answer: Nell Gwynne

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1. Given the thing banned in public schools, name the Supreme Court case FTPE
 - [10] Racial segregation, 1954
Answer: Brown v. Board of Education of Topeka, Kansas
 - [10] Mandatory prayer, 1962
Answer: Engel v. Vitale [accept either]
 - [10] Bible reading, 1963
Answer: School District of Abington Township v. Schempp [accept either]

2. The end will come in a manner of your choosing: the Norse apocalypse or the Christian one. **CHOOSE NOW.**
 - IF NORSE:** Ragnarok will begin after three winters of conflict. 10 points each.
 - [10] This god will start the fun by blowing his horn to summon the gods to battle.
Answer: Heimdall(r)
 - [10] Lif and Lifthrasir will hide in this tree until the battle ends; they will then emerge to provide a daughter whose light will replace that of the eaten sun, and to repopulate the world.
Answer: Yggdrasil
 - [10] The final battle will be fought on this plain in Asgard.
Answer: Vigrid [or Vigard] Plain
 - IF CHRISTIAN:** Answer these questions about events in the Book of Revelation, 10 points each.
 - [10] Before the Lamb opens the seventh seal, the Great Seal of the Living God is placed on the foreheads of God's servants, a group equaling what number, evenly divided among the Twelve Tribes of Israel?
Answer: 144,000
 - [10] When the fifth angel blows his trumpet, which creatures come down to Earth, "like horses armed for battle," to spend five months torturing with scorpion stings all who lack the mark of God?
Answer: locusts
 - [10] After the Millennium, which two rhyming entities join Satan to surround Jerusalem?
Answer: Gog and Magog [or Megog]

EDITOR'S NOTE: Upon hearing this question, Eileen Steinhice instead chose the Sta-Puf Marshmallow Man.

3. Name these cells involved in the immune response, 10 points each.
 - [10] These cells, generated in the marrow, are responsible for making and secreting antibodies.
Answer: B cells (or lymphocytes)
 - [10] These long-lived cells develop from monocytes. They serve as a first line of defense by engulfing and destroying foreign substances.
Answer: macrophages
 - [10] The most common type of granulocytes, they comprise the majority of all white blood cells. They nonspecifically phagocytize microbes.
Answer: neutrophils [NOO-troh-fils] [accept polys or polymorphonuclear cells or PMNs]

4. Given a list of symptoms a person might have, name the psychological disorder of which they are *all* a part, 10 points each.
 - [10] Loose associations, catatonia, and anhedonia [an-hee-DOH-nee-uh]
Answer: (catatonic) schizophrenia
 - [10] Grandiose sense of self-importance, the need for excessive admiration, and haughty attitude.
Answer: narcissistic personality disorder [accept narcissism]
 - [10] Feelings of hopelessness and low levels of energy, in the *absence* of a major depressive or manic episode
Answer: dysthymic disorder or dysthymia

5. FTPE identify these Stephen Crane works.

[10] His first novel, it told the story of a young prostitute who committed suicide.

Answer: Maggie, a Girl of the Streets

[10] The novel based on his shipwreck experience, concerning the efforts of four men to survive in a tiny lifeboat.

Answer: The Open Boat

[10] Civil War soldier Henry Fleming flees combat, but then returns to face it. (Maybe he's half French.)

Answer: The Red Badge of Courage

6. Given the former Soviet state, give the capital city, FTPE:

[10] Latvia

Answer: Riga

[10] Georgia

Answer: Tblisi

[10] Azerbaijan

Answer: Baku

7. Name the following metric units in physics given in terms of base units for 15 points each. For example, if I were to say s^{-1} (inverse second), you would say hertz. If you need the quantity measured, you will only receive 5 points.

[15] $kg \cdot m/s^2$ (kilogram meter per second squared)

[5] Force

Answer: newton

[15] $kg \cdot m^2/s^3$ (kilogram meter squared per second cubed)

[5] Power

Answer: watt

8. Among Quiz Bowlers who rely heavily on encyclopedias, the letter X has been perennially neglected, so we will be X-ited to offer you ten points for naming each of these historical figures whose names all begin with an 'X.'

[10] This Persian ruler was murdered by his vizier Artabanus years after his defeat in the 480 BC Battle of Salamis.

Answer: Xerxes I

[10] Sometimes spelled with a Z, this widow of Septimius Odenathus was the militant queen of Palmyra until her kingdom was conquered by Aurelian in 272.

Answer: Xenobia

[10] A friend of Ignatius Loyola traveled to Japan as a missionary in 1551, and died on December 3, 1552 while trying to book passage to China.

Answer: St. Francis Xavier

9. 30-20-10. Identify the film from quotes.

[30] "It's because I like you, I don't want to be with you."

[20] "Yes, I'm your conscience. We haven't spoken for a while. How have you been?"

[10] "Fish are friends, not food."

Answer: Finding Nemo

10. Given a character name that appears in four Shakespeare plays, name any two of those plays to get 5 pts., or any three for 10 points.

[10] Sir John Falstaff

Answer: *History of Henry IV, Part I; History of Henry IV, Part II; Life of Henry V; Merry Wives of Windsor*

[10] Balthasar

Answer: *The Comedy of Errors, The Merchant of Venice, Romeo and Juliet, Much Ado About Nothing*

[10] Antonio. OK, there are FIVE to choose from.

Answer: *The Merchant of Venice, The Two Gentlemen of Verona, The Tempest, Much Ado About Nothing, Twelfth Night*

11. FTPE provide the following musical terms from definitions:

[10] Literally, "in the manner of the chapel," it refers to any piece without instrumental accompaniment.

Answer: a cappella

[10] Literally, "joke," it is a sprightly instrumental piece, usually a movement of a sonata.

Answer: scherzo

[10] Literally, "fading," it is a gradual slackening of the tempo, in contrast to *ritardando*, which is more pronounced.

Answer: rallentando

12. This question writer was inspired by the "Which of Henry VIII's wives are you" quiz. Given the description on the quiz site, as well as a more historical clue, name the wife, FTSNP.

[5] "Smart, sassy and bitingly witty," she was Henry's second wife, who was beheaded after six years of marriage.

Answer: Anne Boleyn

[5] Doesn't everyone want to be this wife, who was "Demure, matronly and conventional"? She was Henry's third wife, who died during childbirth.

Answer: Jane Seymour

[10] She was "giddy, sexy and always misplacing her underpants. Tee-Hee!" She was beheaded after falling in love with another man, Thomas Culpepper.

Answer: Katherine Howard

[10] Women that are like this wife are, "loyal, loving and incurably romantic." This was Henry's first wife, whom he divorced, causing that whole messy religion thing.

Answer: Catarina (or Catherine) of Aragon

13. Name the Eugene O'Neill plays from characters, FTPE:

[10] Andrew and Robert Mayo, Ruth Atkins

Answer: Beyond the Horizon

[10] Ephraim and Eban Cabot, Abbie Putnam

Answer: Desire Under the Elms

[10] James, Mary, Jamie and Edmund Tyrone

Answer: Long Day's Journey Into Night

14. Despite—or perhaps because—he was married to his sister Hera, Zeus sure did like to get around. Given the children, name the mistress.

[10] Minos, Rhadamanthys [raa-duh-MAN-thiss], Sarpedon

Answer: Europa

[10] Eunomia, Dike, Lachesis

Answer: Themis [do not accept "Thetis"]

[10] Melpomene [mel-PAH-muh-nee], Thalia, Terpsichore [TERP-suh-KOH-ree]

Answer: Mnemosyne [nuh-MAH-suh-nee]

15. Identify the following European refugees who contributed to the Manhattan Project.

[10] This German physicist urged President Roosevelt to fund a project dedicated to the creation of an atomic bomb in a 1939 letter, but was ultimately denied the security clearance needed to work on the project.

Answer: Albert Einstein

[10] This Hungarian physicist, known as the father of the hydrogen bomb, actively promoted research into thermonuclear weapons after the atomic bomb was complete, and received the Presidential Medal of Freedom in 2003.

Answer: Edward (or Ege) Teller

[10] This other Hungarian physicist drafted Einstein's letter to Roosevelt, but as a pacifist he circulated a petition among project scientists opposing the bomb's use and later left the field in disgust to become a biologist.

Answer: Leo Szilard

16. Name the female authors of the following novels for 10 points each:

[10] *Rebecca* and *The Birds*

Answer: Daphne **du Maurier**

[10] *Cat's Eye* and *The Robber Bride*

Answer: Margaret **Atwood**

[10] *Daughter of Fortune* and *The House of Spirits*

Answer: Isabel **Allende**

17. Some lesser-known names put up some big time numbers in college football this past season. FTPE, identify the following big play makers.

[10] He set the NCAA single-season passing yardage mark, capping his 5,336 yard season with 497 yards and 5 touchdowns against Navy in the Houston Bowl.

Answer: B. J. **Symons**

[10] Playing only three quarters of the Hawaii Bowl, this Hawaii quarterback still managed 475 yards passing, and is on pace to break Ty Detmer's career passing yardage mark.

Answer: Timmy **Chang**

[10] He ran for 235 yards against Oklahoma in the Big 12 title game, ending the season as the NCAA's Division I-A rushing leader.

Answer: Darren **Sproles**

18. Name the following treaties from clues, FTPE

[10] This 843 treaty divided the territories corresponding roughly to France, Germany, and Italy among the three grandsons of Charlemagne.

Answer: The Treaty of **Verdun**

[10] This treaty in 1794 between the United States and Great Britain was settle difficulties arising mainly out of violations of the Treaty of Paris of 1783 and to regulate commerce and navigation.

Answer: **Jay's** Treaty

[10] Signed in New Hampshire, on Sept. 5, 1905, this treaty ended the Russo-Japanese War.

Answer: Treaty of **Portsmouth**

19. Fluid mechanics is all about the flow. 10 points each.

[10] In this type of flow, the curl of the corresponding vector field is, by definition, zero.

Answer: **irrotational** flow

[10] In this type of flow, generally described by the Bernoulli equation, the Reynolds number is infinite.

Answer: **inviscid** flow

[10] Unlike an inviscid flow, the Reynolds number of this type of flow is vanishingly small.

Answer: **Stokes'** or **creeping** flow [accept word forms]

20. Given some works, name the member of Der Blaue Reiter Blue Four who created them for ten points each.

(a) "Composition VIII", "Ravine Improvisation", "Black Spot I", "Autumn in Bavaria"

Answer: Wasily **Kandinsky**

(b) "Ad Parnassum", "The Golden Fish", "Death and Fire"

Answer: Paul **Klee**

(c) "Looking Within- Rosy Light", "Symphony in Rose", "The Blue Vase", "Gebirgsdorf 1910"

Answer: Alexei **Jawlensky**

21. 30-20-10. Identify the historical location.

[30] The first large German city to fall to the Allies during World War II, it was originally a Roman spa and was rebuilt following a fire in 1656.

[20] It was the site of the peace conference ending the War of Devolution in 1668.

[10] Awarded to Prussia in the Congress of Vienna, it was the site of Charlemagne's coronation on Christmas day in 800.

Answer: **Aachen** or **Aix-la-Chapelle**

22. Name these poetry collections, 10 points each.
- [10] "And then? And then again?" Those five words form the shortest complete stanza in "The Voyage," the final poem in this French collection.
Answer: *Les Fleurs du Mal* or *The Flowers of Evil*
- [10] This small collection contains the only poems Walt Whitman wrote during the Civil War, the best known of which is "The Wound-Dresser."
Answer: *Drum-Taps*
- [10] This 19th-century collection of German folk poems, assembled by Achim von Arnim and Clemens Brentano, includes such charming selections as "Reveille," "Life on Earth," and "Changing of the Guard in Summertime."
Answer: *From (the) Youth's Magic Horn* or *Des Knaben Wunderhorn*
23. Name the author from works, 30-20-10.
- 30 - "Taras Bulba", "Old World Landowners"
- 20 - "The Tale of how Ivan Ivanovich Quarreled with Ivan Nikiforovich", "The Nose"
- 10 - "The Overcoat," *Dead Souls*
Answer: Nikolai **Gogol**