

ISU Fall Tourney
Round 4

1) The "65" version could be used with a compiler called "WATFOR". The "77" version's standard was defined in a 1978 ANSI document. Nowadays, the most up-to-date programmers use the "90" or "95" versions to write programs in, FTP, what high-level programming language whose name is an abbreviation for "Formula Translator"?

Answer: FORTRAN.

2) A onetime dean of the college of San Nicolas he incurred the suspicion of the Spanish inquisition because he was a lover of French literature and taught his Indian parishioners at Dolores how to grow olives and grapevines. Reaching his high tide mark with 80,000 men before Mexico City, but failing to attack, he was brought to his downfall at the battle of the Bridge of Calderon in January 1811. After his capture he retracted what he had done, saying Mexico was not ready for independence, but was still executed. FTP name this Mexican priest who instigated the first phase in the Mexican War of Independence.

Answer: Miguel Hidalgo y Costillo.

3) In the author's later years he thought it worked best as a "poem of the pure imagination" and would have been better without its moral tone. It was revised in 1817 and published in *The Sibylline Leaves* with a Latin epigraph from Thomas Burnet's *Archaeologiae Philosophicae* and a gloss in the margins. First published, with more archaic language, in 1798's *Lyrical Ballads*, it contains one of the most misquoted lines in literature: "Water, Water, everywhere,/ Nor any drop to drink." FTP name this Samuel Taylor Coleridge poem in which a sailor is divinely punished for shooting an albatross.

Answer: The Rime of the Ancient Mariner.

4) It had five categories: Deity, Hero, Heroine, Mad Person, and Devil plays, which were usually performed in a program interspersed with farces. Created between 1350 and 1450 by Kanami Kiyotsugu and Zeami Motokiyo with the help of the Ashikaga ruler Yoshimitsu, it took its stories from court literature, Buddhist Sutras, and local legends. It was infused with an air of austerity from Zen Buddhism and its stage was based on the Shinto shrine. This form was widely popular upon its inception, and has influenced more popular theater forms like Kabuki. FTP name this highly stylized form of Japanese Theater.

Answer: No or Noh Theater.

5) Elements with this structure include sodium, barium, vanadium, chromium, and iron. It has an atomic packing factor of 0.68 and a coordination number of 8. The relationship between unit cell length a and atomic radius R is $a = \frac{4R}{\sqrt{3}}$, and there are 2 atoms per unit cell. The unit cell can be visualized as a cube with an atom occupying the center. FTP, name this cubic crystal structure.

Answer: body-centered cubic or bcc.

6) It currently funds 380 researchers and publishes Proceedings A and B, Transactions A and B, as well as an annual yearbook. Beginning with informal meetings at Gresham College, at its inception it contained both scientists and wealthy amateurs who might become their patrons, although since 1847 only scientific merit is looked at when electing fellows. Its first president was William Brouncker and others include T.H. Huxley, Joshua Compton, and Samuel Pepys. FTP name this independent national academy of the U.K. chartered in 1662, which has been presided over by Humphrey Davy and Isaac Newton.

Answer: Royal Society of London.

7) In drawing up its constitution there were two opposing sides; one wanted a strong executive on the American model while the other, headed by the Communists, wanted a supreme unicameral legislature. An ineffective compromise was reached. Despite this, great advancements were made including an increase in social security and suffrage for women. Its worst problems were in dealing with the colonies; it saw disaster at Dien Bien Phu and it was the long war in Algeria that eventually caused its collapse. FTP name

this French Republic that replaced Vichy and ended in 1958 with a new constitution drawn up by Charles De Gaulle.

Answer: 4th Republic.

8) He was, appropriately, born on the day of the patron saint of music, St. Cecilia. His first operetta, *Paul Bunyan* had a libretto written by life-long friend and fellow pacifist W.H. Auden and he gave tenor Peter Pears, his partner of forty years, his most challenging role in *Death in Venice*. Many of his other operatic successes were based on great works of literature: most notably *Turn of the Screw*, *A Midsummer Night's Dream*, and *Billy Budd*. FTP name this English composer of *War Requiem* and *Peter Grimes*.

Answer: Benjamin Britten.

9) In Kirtland, Ohio he was tarred and feathered after rumors that he seduced a 17 year old girl. A few years later he was made a general in the Illinois militia largely because politicians were courting the votes of the large following that he brought to Nauvoo. A candidate for president in 1844, that same year he was arrested for destroying the press of a dissident movement in his group, formed after he proposed to the wives of several of his ranking subordinates. Days later he and his brother, Hyrum, were killed by a mob in Carthage. FTP name this founder of the Church of Jesus Christ of Latter Day Saints and "translator" of the Book of Mormon.

Answer: Joseph Smith.

10) Its website is currently running a shoot your own commercial contest with a grand prize of \$10,000. On May 8th it was unveiled at a cafe in Connecticut shortly before several NBC news anchors conducted a taste test on the Today Show. Their television ads feature Chazz Palminteri, generally cast as a mobster, rewarding an inquisitive young man with a taste of this product and the slogan "reward your curiosity." FTP name this beverage, a throwback to 50's soda fountain drinks, the newest flavor of Coca-Cola.

Answer: Vanilla Coke.

11) Chretien de Troyes referred to him as the "Knight of the Cart," because he disgraced himself by riding in one after his horse was killed. He died at the convent of Almesbury, and was buried in his castle, Joyeuse Gard, given to him by his grateful lord. His exploits include rescuing his cousin Lionel from the evil Turquine and killing Meleagant who had imprisoned him and accused his lover. He saw the Holy Grail twice but was unable to acquire it because he loved a woman more than God. The son of Ban of Benwick, he was raised at the court of Vivien who presented him to King Arthur on his 18th birthday. FTP name this knight of the Round Table and lover of Guinevere.

Answer: Lancelot of the Lake or Launcelot du Lac.

12) Max Planck was a colleague of the formulator of this law, and used its breakdown to formulate his idea of quantum theory. The formulator used a stove with a small hole to approximate an ideal blackbody. Approximating interstellar dust and stars as blackbodies, we can use this rule to predict dust to emit infrared radiation while stars emit visible and ultraviolet radiation. FTP, name this law that related the wavelength of radiation emitted by a blackbody to its temperature.

Answer: Wien's displacement law

13) Written over thirteen years and published in installments, its first ten books defend Christianity against paganism, a theme which Orosius takes up, allowing its author to progress to another theme. Book 14 is an essay on original sin and Book 19 discussed the Christian belief regarding happiness. Contrary to popular belief it does not condemn secular governments, but recognizes their usefulness in a world of corrupt humanity. Written in the wake of Alaric's 410 sack of Rome, FTP name this book, clearly separating the secular world from the religious one, written by St. Augustine.

Answer: City of God.

14) "It is a picture that even strong men find difficult to look at long if they look at it at all," is the way one critic described it. Many contemporaries agreed, as it was rejected for a Philadelphia exhibition, celebrating the first centennial, because it was too brutally realistic. It now hangs in Philadelphia's Jefferson Medical College where its subject once worked. All the onlookers have been identified including an anesthiast and the mother of the patient who cannot look at the operation being performed on her son's

leg. FTP name this Thomas Eakins painting depicting the appropriately named title doctor and his place of work.

Answer: Gross Clinic.

15) After studying the religion of the Arunta, an Australian tribe, he posited that religion works towards reinforcing group stability. He also asserted, in his *Rules of Sociological Method*, that deviant behavior and its subsequent punishment are absolutely necessary in maintaining the societal standards of appropriate behavior. However, his best known work came with his discovery that people moving into an industrialized society often feel a sense of confusion caused by a lack of societal influence and often resulting in suicide. FTP name this early French Sociologist who coined the term anomie.

Answer: Emile Durkheim.

16) It was founded in 1010 by the Ly emperor Thang Lang who made it his capital. A center of Buddhism with the One Pillar Pagoda, its Old Quarter of 36 streets and stunning French colonial architecture attract many tourists. Undergoing extensive renovations since 1987 this city of 2,200,000 is a transportation hub with a railroad leading to Peking, nearby Noi Bai International airport, and a multitude of waterways including the Duang and Red Rivers. FTP name this city on the Gulf of Tonkin, the capital of Vietnam.

Answer: Hanoi.

17) It airs reruns of *Married with Children*, *M.A.S.H.*, *The X-Files*, *The Practice*, *Buffy the Vampire Slayer*, and *Ally McBeal*. It has recently added Nascar races to its sports coverage including numerous Toughman Competitions. It also runs action movies such as *Die Hard*, *True Lies*, and *Independence Day* ad nauseum under such guises as "A date with your X." In addition it has created its own movies like a film on RFK and *Sins of the Father* starring Tom Sizemore and Ving Rhames. FTP name this cable network whose original series include *Son of the Beach* and *The Shield*.

Answer: FX.

18) DDT in the water is 3×10^{-6} ppm. The concentration is 0.04 ppm in zooplankton, 0.5 ppm in small fish, 2 ppm in large fish, and 25 ppm in pelicans, ospreys, and eagles which eat the fish. There the DDT reached sufficiently high concentrations to interfere with the deposition of calcium in eggshells. FTP, DDT is thus, the most famous example of what ecological process that sees the concentration of a toxin increases as one progresses up the food chain?

Answer: Biological magnification. or Biomagnification.

19) At age seventeen she was pregnant, married to Dick Schiller, and trying to scrape together enough money to move to Alaska. Her first heterosexual intercourse was with Charlie Holmes at Camp Q. She was educated at Ramsdale and Beardsley school for girls where she performed in the play *The Enchanted Hunters* by Clare Quilty, whom she would later abscond with, leaving her step-father, who had become her de facto guardian after her mother, Charlotte, had been killed in a car crash. FTP name this girl, whose real name was Dolores Haze, the object of Humbert Humbert's affections and title nymphet of a Vladimir Nabakov novel.

Answer: Lolita (accept Dolores Haze before it is said).

20) While establishing himself as a novelist with 1867's *Therese Raquin* he often made money by writing newspaper columns in which he openly criticized The Second Empire. His death from carbon monoxide poisoning is still a mystery, as many believe that his political enemies blocked his fireplace. He gained these enemies from a 1898 open letter which included the famous phrase "The truth is on the march and nothing can stop it." FTP name this French man of letters who wrote *J'Accuse* in favor of Alfred Dreyfus as well as the naturalist novels *Nana* and *Germinal*.

Answer: Emile Zola.

Boni

Bonus: Identify these Roman deities from clues FTPE.

1. This two-faced god of beginnings and doorways was a major god in Rome. When his temple was open it signified that Rome was at peace.

Answer: Janus.

2. These household Gods are often associated with the Penates. They were agricultural in origin and were celebrated every year in the Crossroads festival of the Compitalia.

Answer: Lares.

3. This woodland deity whose name means "forester" is often confused with Faunus. He has to be appeased whenever a forest is cleared and it was he who declared that Rome had lost one less soldier in a battle with the Etruscans causing the Etruscans to flee.

Answer: Silvanus.

4. She was the goddess of fruit that is picked from trees. Her consort was Vertumnus, a shape changer, who convinced her to marry him while disguised as an old woman.

Answer: Pomona.

Bonus: Name these related electrical terms for ten points apiece.

1. This is the proportionality constant between electric displacement and electric field intensity.

Answer: permittivity

2. This device is used to store energy in the form of an electrostatic field. They are a critical part of computer RAM.

Answer: capacitor

3. Name the materials such as barium titanate and mica are used in capacitors due to their high relative permittivities, which allows more charge to be stored.

Answer: dielectrics

Bonus: Identify the characters from Wagers Der Ring des Nibelungen FTPE.

1. This dwarf forsook love in order to obtain from the Rhine-maidens the gold from which the ring was made. His son kills Siegfried in the bid to obtain the ring.

Answer: Alberich.

2. This King of the Gods deviously obtains the ring from Alberich but must give it to the giants Fafner and Fasolt to get Freya back whom he had earlier given them in exchange for building Valhalla. His grandson Siegfried dies trying to recover the ring.

Answer: Wotan. (do not, under any circumstances, accept Odin).

2. This is the son of Alberich who kills Siegfried during a hunting feast. Later he and his half-brother Gunther die in a bid to obtain the ring.

Answer: Hagen.

3. She is Wotan's daughter and becomes betrothed to Siegfried after he awakens her from a curse. She induces Hagen to kill Siegfried as a result of a magic potion given him by Hagen which causes Siegfried to forget her and marry Gutrune, the sister of Gunther.

Answer: Brunnhilde.

Bones can be categorized by shape. Identify the following bones as irregular, long, short, or flat. (Moderator: Do not tell them if they are right or wrong until they have answered all.)

1)Frontal

Answer: flat.

2) Tibia

Answer: long.

3) Patella

Answer: irregular.

Bonus: Identify things about a psychologist FTSNOP.

1. (5) This humanist psychologist developed a namesake hierarchy of needs.

Answer: Abraham Maslow.

2. (10). Maslow grouped the first four levels of his hierarchy as this kind of need. The only time you feel the need for something in these levels is when you don't have a sufficient amount of it.

Answer: Deficit Needs.

3. (5) This is the top level of Maslow's hierarchy and is also called growth motivation. Characteristics of people at this stage include being reality and problem centered and being independent from societal trends and environment.

Answer: Self-Actualization.

4. (10) This is the term Maslow coined for the needs of those in the self-actualization stage. They include Truth, Beauty, Completion, Justice, and Order.

Answer: Metaneeds.

Bonus: Identify the type of cell-cell junction, FTPE.

1. This junction type forms a band around the apex of the cell, sealing out the extracellular space and separating the cell's apical and basal regions.

Answer: Tight Junction or Zona occludens

2. This channel type of junction allows the passage of ions and metabolites from one cell to the neighboring cell.

Answer: Gap Junction or Macula communicans

3. These junctions serve as spot welds with cadherins sealing the cells together. A half-moon feature can be seen on each cell in the electron microscope.

Answer Desmosome or Macula adherens

Bonus: Identify the rivers from clues FTPE.

1. With a source in the Great Slave Lake of the Northern Territories and mouth in the Beaufort Sea, at 1800 kilometers it is the longest river in Canada.

Answer: MacKenzie.

2. With a beginning in the Northern Transvaal of South Africa, it forms the borders between that country and both Botswana and Zimbabwe. It enters the Indian Ocean on the coast of Mozambique, after a winding 1,100 mile path.

Answer: Limpopo.

3. With a source in the Valdai Hills, this river flows through Western Russia, Belarus, and the Ukraine before spilling into the Black Sea. Cities on its banks include Smolensk, Kiev, Nikopol, and Kherson.

Answer: Dneiper.

Bonus: Answer the following questions about Reconstruction.

1. This 1864 bill required that a majority of a state's voters take the oath of allegiance and then a constitutional convention would be called. After it abolished slavery and made other changes the state could be re-admitted. It was much more severe than the plan Lincoln proposed.

Answer: Wade-Davis Bill.

2. Northerners and Radical Republicans were appalled when Georgia elected this former Vice-President of the Confederacy to the Senate.

Answer: Alexander H. Stephens.

3. This organization, headed by Oliver O. Howard, supervised the relief effort and education of former slaves as well as taking custody of confiscated lands in the south.

Answer: Freedman's Bureau.

Bonus: Give the following works of literature about the Civil War.

1. Peyton Farquhar, a wealthy planter, is hung at the title location. but not before he imagines that he has escaped and returned home in the split-second it takes the noose to snap his neck in this short-story by Ambrose Bierce.

Answer: An Occurrence at Owl Creek Bridge.

2. Michael Shaara won a Pulitzer Prize for this novel about the Battle of Gettysburg and a few of the primary players (Chamberlain, Lee, Longstreet) involved. It was the basis for the movie *Gettysburg*.

Answer: The Killer Angels.

3. MacKinlay Kantor also won a Pulitzer for his portrayal of the worst prison camp in the South. The book has no quotation marks which can either add to the reader's dream-like feel or annoyance.

Answer: Andersonville.

Bonus: Identify the following philosophical terms that start with the letter S from clues, FTPE.

1. It was a favorite logical tool of Aristotle who defined it as "a discourse in which, a certain thing being stated, something other than what is stated follows of necessity from being so." An example is: All cats are mammals, Bob is a cat, therefore Bob is a mammal.

Answer: Syllogism.

2. The Cambridge Dictionary of Philosophy defines this as "the doctrine that there exists a first-person perspective possessing privileged and irreducible characteristics, in virtue of which we stand in various kinds of isolation from any other persons or things that may exist."

Answer: Solipsism.

3. This theory, based on Darwinism and propounded most notoriously by E. O. Wilson, asserts that human social behavior could be explained (and even reduced) to biological functions. It is often criticized for being racist and sexist.

Answer: Socio-biology or Social Biology.

Bonus: Give the Dickens work from characters FTPE

1. Dick Swiveller, Kit Nubbles, Mr. Martin, Thomas Codlin, and Little Nell Trent.

Answer: Old Curiosity Shop.

2. James Harthouse, Stephen Blackpool, Josiah Bannderby, Thomas Gradgrind.

Answer: Hard Times.

3. Mr. Bumble, Jack Dawkins, Mr. Brownlow, Monks, and Fagin.

Answer: Oliver Twist.

3. Smike, Wackford Squeers, Ned and Charles Cheeryble, Madame Mantalini, and Sir Mulberry Swank.

Answer: Nicholas Nickleby.

Bonus: Identify the following about the early expansion of Islam.

1. After the death of the first caliph Abu Bekr in 634, this man succeeded him and began territorial conquest in earnest. By his 644 death the Persians had been conquered, the Byzantines beaten back, and Egypt taken.

Answer: Omar or Umar.

2. This dynasty succeeded the Parthians as leaders of the Persian state. They brought back Zoroastrianism and rose to power under Ardashir I and Shapur II. Under Yazdagird, their last ruler, this empire fell swiftly to the Muslims after their capital Ctesiphon was captured in 637.

Answer: Sassanid or Sassanian.

3. After a great battle in 635 or 636 the Muslims captured this Syrian metropolis from the Byzantines. It became the capital of the Umayyad Dynasty from 661 until 750 when the Abbasids took power and established their capital at Baghdad.

Answer: Damascus.

Bonus: Refer to the attachment. Given a work of art tell who painted it FTPE.

1. Figure A.

Answer: Mark Rothko.

2. Figure B.

Answer: Marc Chagall.

3. Figure C.

Answer: Wassily Kandinsky.

Bonus: Bruce Willis movies from clues FTPE

1. Willis is a private eye and Daman Wayans is an ex-quarter back whose girlfriend, a topless dancer played by Halle Berry, is killed. Lots of action, wisecracks, and swearing follow as they track down the killers.

Answer: Last Boy Scout.

2. Willis is a Pittsburgh cop who has to work at River Rescue after he testifies against his cousin who brutally beats a suspect to death. Also involved is the serial murdering of women that Willis' character knew. Sarah Jessica Parker and Dennis Farina co-star.

Answer: Striking Distance.

3. This is Willis' most under-appreciated movie. He plays a cat burglar who is kidnapped by a rich couple to help them re-build an alchemy machine that Da Vinci had made centuries before. Andie MacDowell, Danny Aiello, James Coburn and Sandra Bernhard co-star.

Answer: Hudson Hawk.

Bonus: Identify the Roman tribunes FTPE.

1. He was tribune in 232 B.C. when he outraged the Senate by passing a law that would give lands in the

Ager Gallicus and Ager Picenus to poor farmers. Called a demagogue by Polybius, he is more famous as the consul of 217 who foolishly led his army into ambush at Lake Trasimene.

Answer: Gaius Flaminius.

2. Tribune in 123-22, he introduced a broad social program, far different from what his older brother had issued ten years before. It included aid for the rural *and* urban poor, enfranchisement for the Italians, and the establishment of equestrian rather than senatorial juries. After failing to be reelected for 121 he was forced to commit suicide by a senatorial mob.

Answer: Gaius Gracchus.

3. This tribune of 119 largely failed to carry on Gracchus's program but did pass a law to get a truly secret ballot. He went on to become consul seven times, defeating Jugurtha, beating the Cimbri at Vercellae in 101 and eventually entering a Civil War with rival Sulla.

Answer: Gaius Marius.

Bonus: Name the chemical laws from descriptions FTPE.

1. The change in internal energy for a closed system is the sum of the heat added minus the work done by the system.

Answer: First Law of Thermodynamics

2. The vapor pressure of a solvent is proportional to the mole fraction of solvent in a solution.

Answer: Raoult's Law

3. The sum of the enthalpy changes for a series of reaction steps is equal to the change in enthalpy of the reaction.

Answer: Hess's Law

Bonus: Give the Euripides plays from short descriptions FTPE

1. In this play the title character escapes by means of a chariot driven by dragons and bound for Athens. She is forced to flee because she has caused the death of Creon, king of Corinth, and his daughter, as well as her own two sons.

Answer: Medea

2. The play centers around Hecuba who acts as spokesman for herself and the other title characters. Among the great moments of the play are a mad scene with Cassandra, Andromache giving up her son, and the trial of Helen before Menelaus.

Answer: The Trojan Women.

3. Orestes and Pylades go to the Black Sea region and there discover that Orestes' sister, the title character, is the High Priestess in the temple of Artemis.

Answer: Iphigenia in Tauris.

4. Demophon, king of Athens does battle with Eurytheus to protect the title characters who are not part of the chorus and do not have speaking roles. The aging Iolaus plays a large part in the victory due to divine help from Hebe and Zeus.

Answer: Heracleidae or Children of Hercules.

Identify the Martial Swedish kings from clues FTE.

1. This "Father of Modern Warfare" and "Lion of the North" successfully led Swedish forces into the Thirty years war and won victories at Brietenfeld and Lutzen where he was killed.

Answer: Gustavus Adolphus.

2. He spent nearly his entire life fighting Russia in the Great Northern War. He was successful initially but

was soundly defeated by Peter the Great at Poltava in 1708.

Answer: Charles XII.

3. This Marshall of Napoleon performed well at Austerlitz but failed to support Davout at Aurstadt. He was adopted by Charles XIII of Sweden becoming Crown Prince and leading his forces against Napoleon at Leipzig. In 1818 he became King Charles XIV.

Answer: Jean Baptiste Bernadotte.

2. This daughter of Gustavus Adolphus helped negotiate an end to the Thirty Years War. In 1654 she abdicated from the throne and converted to Catholicism, although she is most notable for inviting Descartes to Sweden where the cold weather killed him.

Answer: Christina Vassa.

Bonus: Answer the following questions about Persian literature FTPE.

1. This Persian Quatrain poem was usually epigrammatic. The most famous were written by Omar Khayyam.

Answer: Rubai or Rubaiyat.

2. This was the collection of the sacred writings of Persia's Zoroastrian religion. It contains many works, many of them prayers, written in multiple languages over a long period of time.

Answer: Zend -Avesta.

3. The national epic of Iran, this massive poem was written by Firdawsi around 1000 A.D. It chronicles Persian history up to the 7th century A.D.

Answer: Book of Kings or Shahnama.

FTPE answer the following about the 2002 Earth Summit.

1. In what South Africa city was it held?

Answer: Johannesburg, South Africa

2. Many environmentalists are still angry at the United States for not signing what treaty on global warming?

Answer: Kyoto Treaty

3. Powell criticized this President of Zimbabwe for exacerbating the famine his country faces by his alleged lack of respect for human rights and the rule of law.

Answer: President Robert Mugabe.