Maryland Spring Tournament 2012 - Packet 2

“Does Anybody Have a Question Set We Can Use?”

Tournament Written by Isaac Hirsch, Jeff Amoros, Chris Manners, Ophir Lifshitz, Gary Weiser, Paul Marchsteiner, Brian McPeak, Logan Anbinder, SteveJon Guthrie, Pan Duma, Chris Ray, Dwight Wynne, Tom Waters, Victor Wisehart

Tossups

1. **During this ruler’s reign, Thomas FitzGerald, or Silken Thomas, would besiege Dublin Castle, an action which would prompt this ruler to claim the title of King of Ireland. This king’s military successes at Flodden Field and the Battle of the Spurs would be overshadowed by the rise of a huge rebel army sporting banners with the five wounds of Christ on his soil. That uprising, the** Pilgrimage of Grace, would occur after Thomas Cranmer advised this king to dissolve the monasteries. Cardinal Wolsley and Sir Thomas More did not support his Act of Supremacy, which solved his “great matter” by placing him at the head of the English Church. For ten points, name this English king who had six wives.

ANSWER: **Henry VIII** [prompt on partial answer]

2. **In one of this man’s paintings located in the Sistine Chapel, Joshua protects Moses from being stoned on the right while Korah rebels at the center. This man’s *Adoration of the Magi* takes place under the crumbling ruins of a Roman building and prominently features some Medicis as the Magi. His other works in praise of the Medici family include Lorenzo the Magnificent holding an inkpot for Mary in his *Madonna of the*** *Magnificat*. Another painting by this artist depicts Flora’s transformation in an orange grove to the right of the three graces dancing, and is often called *La Primavera*. For ten points, name this artist who painted a naked goddess emerging from a clam shell in *The Birth of Venus*.

ANSWER: Sandro **Botticelli**

3. **The main character of this novel witnesses somebody attempt to commit suicide by jumping off of a bridge after speaking to Zamyotov, and earlier, that character had a dream where he remembers a horse being beaten to death in the street. The main character’s sister is courted by the pompous Luzhin, although that sister, Dunya, ends up marrying an old school friend of the main character named** Razumikhin. Marmeledov is killed by a horse carriage in this work. Earlier in this novel, the main character borrows an axe from a shed and kills the moneylender Alyona Ivanova. For ten points, name this work about the murderer Raskolnikov, a novel by Fyodor Dostoevsky.

ANSWER: ***Crime and Punishment***

4. **Cooperative binding of ligands to this molecule is governed by the Hill equation, for which this system has a coefficient of about three. Its substrate affinity drops as pH increases but rises as carbon dioxide concentration increases in an effect named for Bohr. However, its competitive binding is the cause of carbon** monoxide poisoning. The most common type of this protein in mammals has four subunits of its namesake porphyrin, which each can contain one iron atom. For 10 points, name these proteins that make up nearly all the dry weight of red blood cells and that transports oxygen.

ANSWER: **Hemoglobin**

5. **One leader of a political party in this country recently described its politics as “rudderless,” and that man is the leader of the socialist Pasok party, which is facing the New Democracy party. Negotiations for one settlement in this country were accepted by Jean-Claude Juncker resulting in a deal worth over $140 billion, though that resulted in this country being reclassified from C** to RD. Germany’s chancellor, Angela Merkel, was hesitant in agreeing to a bailout of this country, resulting in her being depicted as a Nazi. For ten points, name this European nation whose sovereign debt crisis resulted in the ousting of then-president George Papandreou in November of 2011 and also saw protests in Athens.

ANSWER: **Greece**

6. **One event that occurred in this state attempted to overthrow William Fitzhugh as the owner of Chatham Manor. A document from this state was passed thanks to Cumberland Baptists and was its “statute for religious freedom.” A planned slave uprising in this state was led by Gabriel** Prosser, and delegates to the Second Continental Congress from this state included Edmund Randolph and George Mason. For ten points, name this state, split by the Wheeling convention into a “West” portion during the Civil War, the home state of Thomas Jefferson and George Washington.

Answer: **Virginia**

7. **There is some confusion for whether this god or Hrym is the helmsman for the ship made from fingernails, Naglfar. A failed jump over a net by this god explains why salmon have so slim a tail and that escape attempt occurred after this figure masqueraded as Thok. This god lost an eating contest to the embodiment of fire and this god also famously ran with** Svadilfari for an entire night before being impregnated by him. This god causes earthquakes when his wife Sigyn empties the bowl that collects acid from an overhanging snake. This frost giant used subterfuge to get Hodor to shoot mistletoe at Baldur in order to kill him. FTP, name this father of Sleipnir and Fenrir who is the Norse trickster god.

ANSWER: **Loki** [accept **Loke** or **Loptr**]

8. **This phenomenon is the original inspiration for the Langevin equation, but that description breaks down at small timescales because inertial forces overcome thermal ones. This phenomenon is the subject of the second of the Annus Mirabilis papers in 1905, where he assumed that this problem satisfies the** diffusion equation to show that the distance travelled is proportional to the square root of time elapsed. A Scottish Botanist discovered this phenomenon while looking at pollen grains in water but it was first explained comprehensively by Einstein. For 10 points, name this process, the random motion of tiny particles in a fluid.

ANSWER: **Brownian Motion**

9. **One short story by this author sees two characters continually refer to people as “bright boys” before eventually leaving a diner when the man they are there to kill does not show up, and another story by this author sees a man killed by his wife, who was trying to shoot a buffalo. This author of “The Short Happy Life** of Francis Macomber” often wrote about the character Nick Adams in stories like “The Killers,” and one novel by this author sees the Jew Robert Cohn mocked by the other characters. Another novel by this author sees the fisherman Santiago catch and lose a huge fish. For ten points, name this American author of *The Sun Also Rises* and *The Old Man and the Sea*.

ANSWER: Ernest **Hemingway**

10. **This man composed a work based on the text of the physician Alois Jeitteles in his song cycle *To the Distant Beloved.* He created incidental music for the August von Kotzebue play *The Ruins of Athens* and intended to celebrate the promotion of his patron Archduke Rudolph in his mass** *Missa Solemnis.* Works in his most famous genre include one where the horn enters 4 bars before the recapitulation in the first movement and a work that opens with a G-G-G-E flat motif, sometimes called “fate knocking at the door.” For 10 points, name this composer of the aforementioned fifth and “Eroica” symphonies who set Frederich Schiller's “Ode to Joy” to music in his famous ninth symphony.

ANSWER: Ludwig van **Beethoven**

11. **In one scene in this film, one character enrages another character by stabbing at the hand of a third figure and instead impaling a table made of mahogany. Flashbacks in this film depict one character throwing a loaf of charred bread to the protagonist, who in another scene speaks on stage with Caesar Flickerman before he declares her the “Girl on Fire.” Yet another scene in this movie sees the death of** Rue, who had earlier taught the protagonist a simple tune that could be carried by a Mockingjay, and the action of this film begins when that protagonist volunteers to take her sister’s place in the arena. For ten points, name this film in which Peeta Mellark and Katniss Everdeen compete in the titular battle to the death.

ANSWER: *The* ***Hunger Games***

12.  **A ruler of this dynasty issued edicts declaring that only two peacocks and a deer would be slaughtered on his orders. One ruler of this dynasty is called Amitrochates by Greeks and asked to be sent a sophist. A ruler of this dynasty signed a treaty with Selucius I Nicator, while another ruler of this dynasty’s son was the first Buddhist missionary to Sri Lanka. The** Arthashastra was begun during this dynasty, and its most famous ruler warred with Kalinga. That ruler converted to Buddhism. For ten points, name this dynasty whose ruler Chandragupta was the first to unite much of India and which notably spawned Ashoka.

Answer: **Mauryan** Dynasty/ Empire

13. **The Pidgeon process is used to refine this element, ions of which are used as the divalent cation in PCR. Calcium and this element are the two metals present in dolomite, and it is the central metal in the chlorophyll molecule. This metal reacts with organic halides to form Grignard reagents. This element is created by the alpha process in stars from fusing Neon and** Helium, and one of its first uses was in Epsom salts. This metal burns white in the flame test, and burns hot enough that it is used to light fireworks. For 10 points, name this alkaline earth metal with atomic number twelve and chemical symbol Mg.

ANSWER: **Magnesium** [accept “Mg” before end]

14. **In one scene of this play, the protagonist declares that another character’s moist hand is a sign of fertility before describing how one object in this play was given to his mother by an Egyptian witch and was dyed by the blood from virgins. The principal antagonist declares at the start of this play that the beast with two backs was being made by Brabantio’s daughter. That same antagonist would advise the protagonist that** jealousy was a “green-eyed monster” when tricking the protagonist into thinking his wife was having an affair with Cassio. The machinations of Iago would lead to the death of Desdemona in, for ten points, this Shakespearean tragedy about the title Moor.

ANSWER: *The Tragedy of* ***Othello****, the Moor of Venice*

15. **Abhisheka is a form of this in Hinduism often performed with models of deities, and in Baha’i, this must be performed before the recitation of the 95 names. In Islam, this action varies depending on whether or not its practitioner has a beard. Wudu is an example of this action in Islam,** and ghusl is the greater form of this often performed on bodies. In Christianity, Jesus performs this action at the last supper on the feet of his disciples. For ten points, name this ritual action in many religions that involves cleansing with water.

ANSWER: Ritual **Washing** [accept stuff about stuff getting wet]

16. **Ferropericlase as well as magnesium silicate, or post-perovskite, are both thought to be components of the D’’ (D double prime) section of this region, and in 1959, Beno Gutenberg noticed that seismic waves travel more slowly in a part of this region called the low-velocity zone. Its boundary with the** outer core is hypothesized to be the source of its namesake plumes, while the Mohorovicic discontinuity separates the crust and, for ten points, what layer of the Earth below the crust and above the Core?

ANSWER: **Mantle**

17. **One literary character with this profession is stranded in Fenchurch St. Paul on New Year’s Eve and decides to take part in an all night bell-changing. One man with this profession mentions the giant rat of Sumatra in one story and in an earlier tale insults a predecessor who once replaced a letter possessed by Minister D with a fake. A friar in the Umberto Eco novel,** *The Name of the Rose*, also takes up this profession. That character’s name, William of Baskerville, alludes to the work done by the world’s only consulting one of these who first appeared in *A Study in Scarlet*. For ten points, name this profession held by Edgar Allan Poe’s Auguste Dupin and by the partner of Watson, Sherlock Holmes.

ANSWER: **Detective**s [accept reasonable equivalents]

18. **One man who played this instrument recorded *Know What I Mean?* with Bill Evans and had a brother named Nat. Lesser-known figures who played this instrument include Stan Getz and Branford Marsalis. In addition to Cannonball Adderly, another man who played this instrument was Paul Desmond, who played this instrument in the Dave Brubeck Quartet. The most famous player of this instrument named his song** “Naima” after his wife, and put that song on his album *Giant Steps*. That man who played this instrument also recorded *A Love Supreme*. For ten points, name this jazz instrument played by John Coltrane, which comes in both tenor and alto varieties.

ANSWER: (alto) **sax**ophone

19. **The Patriotic Front was founded by the author of the *First of May Constitution* during the 1930s in this country. An extraterritorial plebiscite about this nation prompted the Shame of Gaeta. The Stresa Front attempted to keep this nation independent and Arthur Seyes-Inquart overthrew Kurt Schuschnigg in this nation after one leader’s assassination. In the 1980’s one leader of this country was embroiled in scandal after Alfred Worm discovered that he had been an** officer in the Wehrmacht. For ten points, name this country that was led for a time by Kurt Waldheim and was annexed by Germany in the Anschluss, with capital at Vienna.

ANSWER: **Austria**

20. **This author cites Francois Clouet as an example of the universality of miniature painting and describes myth-making as the inverse of art-making in a discussion of a mode of thinking based on assemblage. This author defines a myth as “all its versions” and uses charts to define their universal content in *The Structural Study of Myth.* This author compared myth to music in the third volume of** *Mythologiques, The Raw and The Cooked.* This man’s most famous work introduced *Bricolage.* For ten points, name this French anthropologist and author of *The Savage Mind,* a founder of structuralism.

ANSWER: Claude **Levi-Strauss**

Bonuses

1. This character shares a tent with the main character of the book he appears in, and this man outfits that tent with many modern conveniences like plumbing and heating. For 10 points each:

[10] Name this short pilot who is shot down during every mission he flies, and eventually escapes the war by rowing to a neutral country.

ANSWER: **Orr**

[10] Orr is roommates with John Yossarian in this satirical Joseph Heller novel about a group of bomber pilots in World War II. It lends its name to an inescapable paradox.

ANSWER: ***Catch-22***

[10] This other character, who is often said to look like Henry Fonda, is identified by his name and rank, which eventually leads to him being called the same word 4 times over.

ANSWER: Major Major Major **Major**

2. Cyprus, Sicily, and Crete all lie in this sea. For 10 points each:

[10] Name this large sea which contains both the Adriatic and Aegean seas that lies to the South of Europe.

ANSWER: **Mediterranean** Sea

[10] This country’s city of Durres lies on the eastern end of the Adriatic. This country has its capital at Tirana.

ANSWER: **Albania**

[10] This Strait connects the Ionian and Adriatic seas. It is named for an Italian city, and lies between Italy and Albania.

ANSWER: Strait of **Otranto**

3. Answer some questions about the reign of the last Russian Tsar, Nicholas II, for ten points each:

[10] Much of his reign was marred by this mad monk who was brought to court to heal Prince Alexei’s haemophilia.

ANSWER: Grigori **Rasputin**

[10] Rasputin’s influence over Tsarina Alexandra effectively ended the career of this Russian prime minister for Nicholas II who authored the October Manifesto and oversaw massive Russian industrialization efforts.

ANSWER: Sergei **Witte**

[10] After Nicholas II abdicated, this communist political party came to power after they overthrew the group they are most often contrasted with, the Mensheviks.

ANSWER: **Bolshevik**s [accept **Majority**]

4. Since this God is occasionally depicted as a protector of Ra, he is sometimes portrayed spearing a demon. For 10 points each:

[10] Name this Egyptian God of storms, most well-known for betraying his brother by chopping him up and shoving him in a box.

ANSWER: **Set**h [or **Setesh**]

[10] Set’s brother was this Egyptian God of the dead. This God judged the dead in the underworld, was married to Isis, and fathered Horus.  
ANSWER: **Osiris**

[10] This is the demon Set slays while protecting Ra’s solar barge. He is usually depicted as a serpent, and was said to dwell just below the horizon.

ANSWER: **Apep** [accept **Apophis**]

5. Identify these things about the Krebs Cycle. For ten points each:

[10] Before the Krebs Cycle can take place, this process must cleave one sugar molecule into two molecules of pyruvic acid.

ANSWER: **Glycolysis**

[10] The Krebs cycle only creates one of these high energy compounds each cycle, but each molecule of NADPH and FADH2 are converted to this energy currency compound later.

ANSWER: **ATP**

[10] In the first step of the Krebs cycle, acetyl CoA merges with this four carbon molecule to form citric acid. This molecule is created from malate in the last step of the cycle.

ANSWER: **oxaloacetate** or **oxaloacetic acid**

6. The composer’s lyrics to this piece are often replaced with “Three Cheers for the Red, White and Blue.” For ten points each:

[10] Name this march composition which famously includes an obbligato played by one or three piccolos.

ANSWER: *The* ***Stars and Stripes Forever***

[10] *Stars and Stripes Forever* was composed by this namesake of the marching tuba, the so called March King.

ANSWER: John Philip **Sousa**

[10] This composition was originally meant to be part of the composer’s operetta *The Devil’s Deputy*. Its bouncing theme is complemented by the tolling of tubular bells.

ANSWER: ***Liberty Bell*** *March*

7. This man was born in Genoa, Italy, but sailed under the flag of Spain. For 10 points each:

[10] Name this explorer, who accidentally discovered San Salvador before making contact with the American continent around 1492.

ANSWER: Christopher **Columbus** [accept Cristobal **Colon**]

[10] This man founded and was the mayor of Santa Maria. He was eventually sentenced to death by Gaspar de Espinosa.

ANSWER: Vasco Nunez de **Balboa**

[10] Another Spanish explorer was this would-be conquistador, who ventured across the modern-day Southwestern United States in search of the city of Cibola and other mythical cities of gold.  
ANSWER: Francisco Vasquez de **Coronado**

8. This philosopher is probably most famous for a book that introduced the idea of the “incommensurability thesis.” For 10 points each:

[10] Name this American philosopher, whose most well-known book popularized the term “paradigm shift.”

ANSWER: Thomas **Kuhn**

[10] Kuhn’s most famous book discussed the structure of revolutions within this discipline, whose sub-disciplines include chemistry and biology.

ANSWER: **Science** or **Scientific**

[10] Another philosopher who often talked about science was Karl Popper. Popper also wrote about the Open kind of this group and its enemies, which is compared with civilization by Thomas Paine. Emile Durkheim wrote about the division of labor within this group.

ANSWER: **society**

9. The title objects of this work are depicted on a pink scarf. For 10 points each:

[10] Name this novel about Kiuji, who has an affair with Mrs. Ota. It famously describes the Japanese tea ceremony.

ANSWER: ***Thousand Cranes*** [or ***Sembazuru***]

[10] *Thousand Cranes* is by this author who also wrote *The Old Capital* and *The Master of Go*. He was the first Japanese author to win the Nobel Prize, and, like his friend Mishima, he committed suicide in 1972.

ANSWER: Yasunari **Kawabata**

[10] One of Kawabata’s most famous novels is titled after a “Snow” kind of this place. A Cormac McCarthy novel is titled after one of these places “For Old Men.”

ANSWER: **Country**

10. In German the article der/die/das changes to dem/der/dem in this case. For ten points each:

[10] Name this case which in many languages typically marks the use of the Indirect Object in a sentence.

ANSWER: **Dative** Case

[10] This language includes the Dative case as well as the Ablative, Genitive, Vocative, Locative, Nominative, and Accusative cases. It was spoken by the Romans.

ANSWER: **Latin**

[10] With cases, these groups categorize nouns. In Latin the first one of these contains mostly feminine nouns and the second one of these contains mostly male nouns.

ANSWER: **Declension**s

11. Governor Warren Greene won the South Dakota primary in this election year in which Frank Knox was the Republican Vice Presidential candidate. For ten points each:

[10] Name this election in which a governor from Kansas who had recently defeated Harry Woodring in his home state was defeated.

Answer: Election of **1936**

[10] That Kansas governor was this man who barely defeated William Borah for the Republican nomination and who only won the states of Maine and Vermont in 1936.

Answer: Alf **Landon**

[10] Landon lost to this man who was elected to an unprecedented four terms as president and who was succeeded as president by Harry Truman after his death.

Answer: **F**ranklin Delano **Roosevelt** (prompt on Roosevelt, accept **FDR**)

12. This character wrote the Marquis de la Mole a letter denouncing the protagonist of the work in which she appears. FTPE:

[10] Name this character who has an affair with the tutor of her children and who was shot by that same man while in church in Verrieres.

ANSWER: Madame **de Renal**

[10] Madame de Renal appears as the lover of Julien Sorel in this Stendhal novel subtitled, “A Chronicle of the 19th Century.”

ANSWER: *The* ***Red and the Black****: A Chronicle of the 19th Century*

[10]The titular color Black refers to this profession which Julien is attempting to join at the start of the novel. He would use his training in this profession to impress characters by quoting the bible in Latin.

ANSWER: Catholic **Priest** [accept reasonable equivalents]

13. It can be found by integrating the Euler equation along a streamline, in which context it is merely a restatement of the conservation of energy. For 10 points each:

[10] Name this equation in fluid dynamics which states that an increase in pressure corresponds to a decrease in velocity or potential energy.

ANSWER: **Bernoulli’s** Equation

[10] Bernoulli’s equation holds for fluids for which this value is equal to zero. This value, high for molasses, represents resistance to flow.

ANSWER: **Viscosity**

[10] This equation of fluid dynamics incorporates viscosity to give the pressure drop in a cylindrical pipe as a function of length, dynamic viscosity, flow rate, and diameter.

ANSWER: Hagen-**Poiseuille** Equation

14. Name these followers of Jesus for 10 points each:

[10] This apostle denied knowing Jesus three times, but despite sucking a lot redeemed himself a bit and became the rock upon which Jesus would build the Catholic church.

ANSWER: St. **Peter**

[10] This apostle doubted Jesus’ resurrection and therefore put his fingers inside the wounds of the Glorified Christ. He is often called Didymus meaning twin.

ANSWER: St. **Thomas**

[10] This apostle is the patron saint of lost causes and is depicted holding a club with the Holy Spirit manifested in fire above his head. You might confuse him with the similarly named brother of Jesus especially since theologians do not know if they are the same person or not.

ANSWER: St. **Jude** Thaddaeus [do not accept “Judas”]

15. Bronsted and Lowry characterized them by the ability to disassociate into hydrogen ions. For 10 points each:

[10] Name these chemical substances characterized by a pH value less than seven.

ANSWER: **Acids**

[10] This type of solution is formed by a weak acid or base and its conjugate. These mixtures do not change pH much when a strong acid or base is added to it.

ANSWER: **Buffer** Solution

[10] These compounds are organic acids in which the carbon atom is singly bonded to one oxygen and doubly bonded to another. One example is acetic acid, found in vinegar.

ANSWER: **Carboxylic** Acid

16. This character drunkenly auctions off his wife and daughter at the beginning of the work he appears in. For 10 points each:

[10] Name this character, a rival of Donald Farfrae who spurns Lucetta when his wife reappears.

ANSWER: **Michael** **Henchard** [accept either; accept **mayor of Casterbridge**]

[10] Michael Henchard is the title character of this man’s *The Mayor of Casterbridge*. This British author, who often set his novels in Wessex, also wrote *Jude the Obscure* and *Far from the Madding Crowd*.

ANSWER: Thomas **Hardy**

[10] This other Hardy novel concerns Clym Yeobright, who comes back to Egdon Heath only to see his love interest, Eustacia Vye, drown with another man in a river.

ANSWER: *The* ***Return of the Native***

17. Name some major figures from modern Chinese history, for 10 points each:

[10] This doctor was a member of the Four Bandits and helped overthrow the Qing [“CHING”] dynasty. He was the first President of the Republic of China. He founded the Kuomintang.

ANSWER: **Sun** Yat-sen [or **Guofu**; accept variants of names following **Sun**; prompt on Yat-sen]

[10] This Chairman of the Chinese Communist party led the Long March and wrote the Little Red Book.

ANSWER: Chairman **Mao** Zedong [prompt on **Zedong**]

[10] This underling of Mao served as the Chinese foreign minister for most of the 1950s and helped bring Nixon to China. He died shortly before Mao.

ANSWER: **Zhou** Enlai

18. In one painting in this series, a gnarled and splintered tree at the right stands in front of some dangerous rapids leading to the ocean. For 10 points each:

[10] Name this series of paintings which includes the aforementioned *Manhood* as well as *Childhood*, and *Old Age*, about a guardian angel watching a traveller in a boat.

ANSWER: *The* ***Voyage of Life***

[10] The *Voyage of Life* was painted by this American artist who also painted the *Course of Empire* series.

ANSWER: Thomas **Cole**

[10] Cole along with Frederic Church and Asher Durand was a member of this American Romantic art movement named for a New York state waterway.

ANSWER: **Hudson River** School

19. Answer some questions about locations with the same name, for ten points each:

[10] Commander Shepard may have many favorite stores in this location in the Mass Effect series. This gigantic space station is supposedly of Prothean design and houses the galactic council and C-Sec.

ANSWER: The **Citadel**

[10] In Fallout 3, this building is also called the citadel. In real life, this building near Washington DC houses the Department of Defense and was attacked on September 11th.

ANSWER: **Pentagon**

[10] Operation Citadel was the codename for this World War II battle in Russia. Germany’s blitzkreig tactics tremendously failed in this largest tank battle in history.

ANSWER: Battle of **Kursk**

20. This man lends his name along with Mascheroni to a constant equal to the difference between the harmonic series and the natural log. For 10 points each:

[10] Name this Swiss mathematician who solved the Bridges of Konigsberg problem.

ANSWER: Leonhard **Euler**

[10] The Gauss-Bonnet theorem relates the Euler characteristic of a surface to a surface integral of this quantity. For a function F of X, the sign of this quantity is the same as the sign of the second derivative.

ANSWER: Gaussian **Curvature** [prompt on “concavity”]

[10] The Euler formula is a geometric identity that extends the exponential to complex value. Give this value of E to the pi I.

ANSWER: **Negative one** [accept **minus one**, do not accept or prompt on partial answers]