Maryland Spring Tournament 2012 - Packet 9

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

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1. **Much evolutionary study of this group focuses on their distinctive middle ear bones. Therapsids are early ancestors of these, and include cynodonts, which give rise to these in the late Triassic. Though their first members appeared in the Mesozoic, it was not until the Cenozoic that most of their modern orders started to** evolve. The two major types are australosphenids, which include placentals, and theria, which include monotremes, which unlike most of these animals lay egg. Named for nursing their young with milk, for 10 points, name this class of vertebrate animals which includes dogs, bats, and humans.

ANSWER: **Mammals** [accept **mammalia**]

2. **James Laidlaw critiques one theory of this practice with the example of Jain ascetics who avoid returning to the same home twice. Lewis Hyde cited a tale about two Brahmin women who became poisoned wells due to incorrectly performing this practice. One organized system for this practice involves necklaces and armbands and occurs in the Massim. That system is called the kula, and along with** potlatch is the subject of a 1923 book that discusses how the title practice helps to build relationship. That work was written by Marcel Mauss and discusses how the objects of this practice are never free, but invite reciprocity. For 10 points, name this practice which, along with eating cake, might occur at a birthday party.

ANSWER: **Gift Giving** [accept equivalents]

3. **One essay about this country describes its people as "[their] face is a mask and so is [their] smile" and concludes describing their identification with "Nobody." One author from this country wrote a work whose central action sees Phillip II construct the Escorial. Another author wrote a 584-line poem without punctuation that repeats its opening lines at the end titled** Sunstone. That author from this country wrote a series of essays about this country including The Sons of La Malinche and The Day of the Dead; that collection is entitled *The Labyrinth of Solitude*. For 10 points, name this country home to Carlos Fuentes and Octavio Paz.

ANSWER: **Mexico**

4. **One of his earliest works was the cantata the *Song of Lament* and he set a bunch of folk-poems to music in his work *The Young Lad's Magic Horn*. "Now the sun wants to rise as brightly" is the first of the poems by Friedrich Ruckert that he set to music in his *Songs on the Death of Children* and Hans Bethge's translation of ancient Chinese poetry inspired his work** *The Song of the Earth*. His first symphony features a funeral march based on the theme of “Frere Jacques” and his eighth symphony was partially based on the hymn *Veni creator spiritus* and nicknamed for the large number of performers required. For 10 points, name this Austrian composer of the *Titan Symphony* and the *Symphony of a Thousand*.

ANSWER: Gustav **Mahler**

5. **The eunuch Posides was a favorite of this Emperor, whose general Aulus Plautius led an invastion of Britain. This man used 30,000 workers to attempt to make an outlet through the Fucine Lake and Gaius Silius plotted with this man’s wife Messilina to kill him. He then married the daughter of his brother Germanicus,** Agrippina the Younger. This man’s predecessor was murdered by a group led by Cassius Chaerea, the Praetorian Guard.. Reportedly cowering behind a curtain when he was proclaimed emperor, for ten points, name this successor to Tiberius, who himself was succeeded by Nero, an emperor who Robert Graves wrote a fictional autobiography of.

ANSWER: **Claudius**

6. **The French woman Lydia Corbett also known as Sylvette inspired over 40 works by this man. He depicted the bodies of a family murdered under a dinner table in his painting *The Charnel House* and a boy carries a barrel behind his back next to a fat man in red in this man's work *Family of Saltimbanques.* In another work he painted strange angular faces said to be inspired by** African tribal masks and in yet another work would juxtapose imagery like a light-bulb above a reeling horse and a flower sprouting from the severed arm of a soldier to depict the horrors of a bombing raid. With works commonly divided into a “Rose Period” and “Blue Period”, for 10 points, name this Spanish artist whose works *Les Demoiselles d'Avignon* and *Guernica* illustrate his cubist style.

ANSWER: Pablo **Picasso**

7. **In one work by this author, Dr Stockman refuses to leave his town after accusing the town's baths of contamination. Another work ends with Mrs. Alving deciding whether or not to euthanize her syphilitic son Oswald. Those plays are *An Enemy of the People* and *Ghosts*. A more famous play by this author sees the wife of Jorgen** Tesman encourage the suicide of Lovborg before shooting herself. In yet another play by this author, Krogstad attempts to blackmail Nora Helmer, who leaves her husband Torvald. For 10 points, name this Norwegian playwright of *Hedda Gabler* and *A Doll's House*.

ANSWER: Henrik **Ibsen**

8. **Milo Fitzwater, the Earl of Hereford opposed one English king by this name that was captured by Ranulf of Gernon and Robert of Gloucester at the battle of Lincoln. Another king of this name appointed Peter Orseolo as his heir and fought Boleslaw I with Henry II . That English king’s son died in the White** Ship Incident and fought with his sister Maud in the Anarchy, while the other king of this name was crowned by Sylvester II, possibly on Christmas Day and canonized by Gregory VII. For ten points, give the name shared by the only King of England from the House of Blois and the first king of Hungary, known as “Saint”.

ANSWER: **Stephen**

9. **A national park in this territory is home to Takakkaw Falls. That is Yoho National park which, along with Banff, Kootenay, and Jasper make up a UNESCO world heritage site because they contain an archaeological site of Cambrian era fossils. That site is known as the Burgess Shale. This territory gains its name from the Hudson** Bay Company’s ownership this region, which needed to be distinguished from that controlled by America, on the other side of its eponymous river. Host of the most recent winter Olympics, for ten points, name this westernmost province of Canada whose capital is Vancouver.

ANSWER: **British Columbia** [accept **B.C.**]

10. **These objects are usually acted on by MD5 or Blowfish before use. A precomputed list of these via inverted hash is called a rainbow table. Stretching is a technique to increase the effective length of these objects. These are usually stored only in hashed form, and their frequent mutation occurs in a process called aging. The strength of these** objects is generally proportional to their length, though poor choices are vulnerable to dictionary attacks, in general brute force attacks occur when a black hat tries every possible combination until one works. For 10 points, name these short strings used to restrict access to authorized users.

ANSWER: **Password**s [accept **passcode**]

11. **When this man's *On the Basis of Morality* was not awarded a prize in an essay competition despite being the only entry, he forced it to be packaged with a more popular work in the collection *Two Fundamental Problems of Ethics*. His most famous work contrasts morphology and etiology before assessing the Kantian legacy of the separation of the phenomenon from the** thing-in-itself. That work considers realizing the Platonic ideal of an object in its section on aesthetics, and draws from Buddhist and Hindu thought in advocating self-denial to address the impossibility of one of the titular concepts. For 10 points, identify this German philosopher who wrote *On the Fourfold Root of the Principle of Sufficient Reason* and *The World as Will and Representation*.

ANSWER: Arthur **Schopenhauer**

12. **A notable opponent of this action was the publisher of *The Panoplist* who used the pseudonym William Penn to attack this action. That man was Jeremiah Evarts. The term “Talking Leaves” was associated with this action by one group and James Henry Carleton created the Bosque Redondo as a destination for one group who undertook this action. One treaty that led to this was opposed by the National Party and notably not signed by John** Ross. Enforced by the Treaty of New Echota, its namesake act was opposed by Davy Crockett. The most famous occurrence of this saw Winfield Scott in charge of leading a group from Georgia to Oklahoma. For ten points, name this action advocated by Andrew Jackson, which was exemplified by the Trail of Tears.

ANSWER: **Indian Removal** (ACCEPT: **Cherokee Removal** until James Henry Carleton)

13. **In this work, one character threatens to whip his servant for leaving his house, and one point of disagreement is six pounds requested for firewood. Bridget's name is added to Sarah and Goody's at the end of this play's first act. One character has had seven children die within a day of their births, and** Tituba admits to trying to summon their spirits. At the trial, Elizabeth lies about her husband's affair with Abigail, leading John Proctor to hang when he refuses to falsely confess. For 10 points, name this Arthur Miller play about the Salem witch trials.

ANSWER: *The* ***Crucible***

14. **The never observed decay of this particle is one test for proposed GUTs. Most cosmic rays consist of high energy examples of this particle. Along with a slightly heavier particle, this particle's interior composition is predicted by QCD. The major nuclear reaction in the sun is named for this particle, four of which are converted into a** heavier particle in on turn of the cycle. This baryon is formed from two up quarks and a down quark, giving it a positive charge. One of these particles and an electron are the products of beta decay. For 10 points, name this particle found in the atomic nucleus along with the neutron.

ANSWER: **Proton** [prompt on "Hydrogen nucleus" or "Hydrogen ion"]

15. **Temples in this religion may feature large pillars called columns of honor. It’s not Buddhism, but this religion’s concepts of right faith, right knowledge, and right conduct are known as the three jewels, while the most recent of a line of 24 figures in this religion was named Mahavira, and his predecessors lived** quintillions of years. Those figures in this religion are referred to as tirthankaras, while different sects in this religion are Svetambara, or “white-clad” adherents, and Digambara, whose adherents wear no clothes. Members of this religion may sweep the ground in front of them as they walk to avoid killing insects. For 10 points, name this eastern religion that preaches ahimsa, or nonviolence.

ANSWER: **Jainism**

16. **One leader of these peoples organized the armed forces into groups known as *Chiliarchies*, while larger groups were known as *Tumen.* The leader of these people was elected through a process known as a *Kurultai* in which the nobles would cast their votes. One leader of these people was named Ariq Boke;** However most of his reign was overseen by the regent Sorghaghtani Beki. The first leader of these peoples, had to rescue his wife from the Merkit tribe, and that wife Borte would later be the mother to her sons Ogedei, Jochi, and Chagatai. These peoples eventually separated their state into 4 kingdoms, one example of which was the Golden Horde. For 10 points identify these Central Asian peoples who were united under Genghis Khan.
ANSWER: **Mongols**

17. **Unlike cyclopentadiene, furans are aromatic because one of these entities contributes to the four N plus two requirement. Polydentate ligands typically sport these at multiple locations and thus are able to form chelates. Singlet carbenes consist of a carbon with one of these, and more stable amines have one of these entities allowing them to engage in hydrogen** bonding. The electrostatic repulsion of two of these is responsible for water having a bond angle of 104.5 rather than 109 degrees, and they are usually closer to the nucleus than bonding electrons. For 10 points, name this set of two unshared valence electrons.

ANSWER: **Lone Pairs** [prompt on “electrons” before mentioned; prompt on “oxygen” before “polydentate”]

18. **A holiday which celebrates the Virgin Mary’s ascension to heaven marks the setting of this opera. The female lead in this opera sings the aria *Qual fiamma avea nel guardo* before striking her admirer with a whip. The opera begins with the aria *Si Puo* sung by Tonio which implores the audience that the main characters are in fact** real people. A famous recording of this opera which saw Enrico Caruso as the main character was the first ever to sell a million copies. This opera’s first act ends with the aria *Vesti la giubba* sung by Canio. Canio suffers as the audience cheers in, for ten points, this Leoncavallo opera in which a man playing the titular clown stabs his wife and her lover.

ANSWER: I **Pagliacci**

19. **After giving a speech promising to “hold [his people] to [his] bosom, the antagonist of this film is mockingly asked “have you ever embraced someone dying of plague?” by Derek Jacobi. A fictional language created by Lisa Gerrard provides the vocals for this film's spectacular “Now We Are Free,” a Hans Zimmer piece heard in a recurring scene as the protagonist walks through tall grass. That protagonist adopts the persona of “the Spaniard” upon being sold to** Proximo along with Juba, played by Djimon Hounsou. This film opens with a clash against the Marcomanni, where the title character delivering the memorable line, “at my signal, unleash hell.” Ending with the death of the Joaquin Phoenix-portrayed Commodus at the hands Maximus Decimus Meridius, for 10 points, identify this 2000 Ridley Scott Best Picture featuring Russell Crowe killing a lot of people in the Coliseum.

ANSWER: ***Gladiator***

20. **The speaker of this poem bemoans his lack of skill "to make [his] will quite clear to such an one." One character in this poem is described as having a mantle that laps over her wrists too much, and later is described how some "officious fool" brought her a "bough of cherries." After discussing the title object, the speaker turns to a statue of** Neptune cast in bronze by Claus of Innsbruck. One character has "a heart... too soon made glad" before the speaker "gave commands" and "all smiles stopped together." Taking place while the speaker describes a painting by Fra Pandolf of his deceased wife, for 10 points, name this Robert Browning poem.

ANSWER: **My Last Duchess**

BONUSES

1. This man provided the inspiration for Carlos Fuentes’ *The Old Gringo*. For ten points each:

[10] Name this American author who collected satirical definitions of English words in *The Devil’s Dictionary*.

ANSWER: Ambrose **Bierce**

[10] In this short story by Bierce, Peyton Farquhar is sentenced to death by hanging and imagines his escape prior to the rope breaking his neck.

ANSWER: “**An Occurrence At Owl Creek Bridge**”

[10] This other short story by Bierce follows a deaf-mute boy who plays with some soldiers, only to discover later that they burned down his home and killed his parents.

ANSWER: “**Chickamauga**”

2. Its synthesis begins with tyrosine, which is converted to dopamine in a namesake gland before becoming this molecule. For 10 points each:

[10] Name this hormone and neurotransmitter that regulates the fight-or-flight response.

ANSWER: **Adrenaline** [accept **Epinephrine**]

[10] When a hormone like adrenaline binds to receptor G proteins, it activates this class of signalling molecules to amplify their effect. Examples of these molecules include cyclic AMP, nitric oxide, and IP three.

ANSWER: **Second Messengers**

[10] This class of protein is commonly activated during signal transduction to change the behavior of other proteins. These proteins act by phosphorylating other proteins, often at serine and threonine residues.

ANSWER: Protein **Kinase** C

3. The central practice of this belief system consists of four standing exercises followed by a reflective meditation. For 10 points each:

[10] Identify this faith founded by Li Hongzhi, who claimed he had planted a “law wheel” in the stomachs of its practitioners, and also that Earth is currently under siege by aliens trying to replace humanity, which is where computers come from.

ANSWER: **Falun Gong**

[10] This large country has conducted notoriously brutal crackdowns on the Falun Gong movement. Its native religions include Daoism and Confucianism.

ANSWER: **China** [or **People's Republic of China**; or **PRC**]

[10] Practitioners of this faith have maintained a notable community in the Chinese city of Kaifeng, where they were known as “the ones who remove the sinews” referencing this faith's dietary rules. Theologians of this religion include the medieval Maimonedes, who wrote *A Guide for the Perplexed*.

ANSWER: **Judaism** [accept equivalents]

4. Name some figures of the Roman Republic who liked to stir up trouble, for ten points each:

[10] This Roman general and consul reformed the Roman Army and fought Sulla in the First Civil War

ANSWER: **Gaius Marius** [prompt on partial]

[10] This member of the first triumvirate was given the epithet Magnus, meaning great. Julius Caesar defeated him to gain total power after Crassus died.

ANSWER: **Pompey**

[10] Cicero delivered some orations against this man who led a namesake conspiracy in Rome. He gained support from the equestrian class after he promised to wipe away all debt.

ANSWER: **Catiline**

5. The neat parallel rows of corn in this painting symbolize the modernity of the farm where this work takes place. For 10 points:

[10] Name this double portrait depicting Frances Carter in a blue dress along with her husband who holds a rifle and leans next to an oak tree with his hunting dog.

ANSWER: ***Mr. and Mrs. Andrews***

[10] This English landscape artist painted *Mr. and Mrs. Andrews*, as well as portraits of famous figures like Sarah Siddons and Mrs. Sheridan.

ANSWER: Thomas **Gainsborough**

[10] This most famous work of Thomas Gainsborough is thought to be a portrait of Jonathan Buttall depicted in a historical costume of the title color.

ANSWER: *The* ***Blue Boy***

6. Lots of things in literature are red. Name some, for ten points each:

[10] This Stephen Crane novel sees the death of Jim Conklin and follows Henry Fleming’s experiences during the Civil War.

ANSWER: *The* ***Red Badge of Courage***

[10] *My Name is Red* is a novel by this Turkish author of *The Black Book* and *Snow*.

ANSWER: Orhan **Pamuk**

[10] This August Strindberg novel follows the life of Arvid Falk, who leaves his job in the bureaucracy in order to become a writer. He eventually joins up with some bohemians, who meet in the title location.

ANSWER: *The* ***Red Room***

7. Answer the following about some recent Chinese dissidents, for ten points each:

[10] This blind Chinese activist has been in the news recently as attempts by the United States to offer political haven to him were put in doubt due to the risks toward his remaining family.

ANSWER: **Chen** Guangcheng

[10] This Chinese artist who created of *Sunflower Seeds* as well as designed the Beijing National Stadium for the 2008 Olympics was arrested and his studio demolished not long after he was awarded the 2010 Nobel Peace Prize.

ANSWER: **Ai** **Weiwei** [accept either]

[10]This actor was accosted by Chinese police while attempting to visit Chen Guangcheng. He plays Bruce Wayne in Christopher Nolan’s Batman series.

ANSWER: Christian **Bale**

8. The Caliphate of this city ruled much of the Iberian Peninsula and parts of North Africa in the 10th and 11th centuries. For ten points each:

[10] Name this city, a great center of medieval learning, which has a namesake Great Mosque.

ANSWER: **Cordoba**

[10] The Caliphate of Cordoba was controlled by remnants of this dynasty, who previously had a capital at Damascus and were driven out of the Middle east by the Abbasid Dynasty.

ANSWER: **Ummayad** Dynasty or Caliphate

[10] The Ummayad Dynasty under Marwan II was decisively defeated at this 750 battle by the Abassids, which essentially ended Ummayad hegemony in the Middle East.

ANSWER: Battle of the **Zab**

9. These phenomena break in either a spilling or plunging manner, and that occurs when their medium decreases in depth. For 10 point each:

[10] Name these surface phenomena caused by fetch length and wind speed and which contribute to longshore drift.

ANSWER: Wind Generated **Waves** [accept Ocean Surface **Waves**]

[10] Unlike wind generated waves, these much larger waves are a result of geologic processes, like earthquakes.

ANSWER: **Tsunami** [accept **Tidal Waves**]

[10] Longshore drift by waves on a beach can lead to the formation of this type of shoal. These form when the coast turns away from the littoral drift, causing a sandbar to develop pointing out of the land.

ANSWER: Sand**spit** [accept **tombolo**]

10. It was this book which “woke Kant from his dogmatic slumber.” For ten points each;

[10] Name this book that argues that all ideas are received from impressions and includes the section “On Miracles”.

ANSWER: **Enquiry Concerning Human Understanding**

[10] This Scottish philosopher wrote an essay concerning human understanding. He is grouped with Locke and Berkeley into the Empiricism tradition, which believed that ideas come from experience rather than innate knowledge.

ANSWER: David **Hume**

[10] Hume first wrote this much longer work which he said “fell dead in the presses.” Due to its unpopularity, he reworked it into the shorter and more readable Enquiry.

ANSWER: **Treatise of Human Nature**

11. Times sure have changed since the era of Sigmund Freud, especially in methods of treatment for psychological disorders. Answer some questions about these practices, for 10 points each:

[10] Freud practiced this branch of psychology which sought to help people by making them understand the unconscious drives underlying their behavior.

ANSWER: **Psychoanalysis**

[10] A more recent, though controversial, therapy is this one advocated by Albert Ellis. It sees therapists take forceful roles with their patients, even going so far as shouting obscenities at them when they express destructive cognitions.

ANSWER: **Rational-Emotive** therapy

[10] This much tamer form of therapy was pioneered by Carl Rogers. It takes its name from a reinforcement of the humanity of the people it is trying to help and from the fact that a therapist should not refer to them as “patients”

ANSWER: **Client-centered** therapy [accept **Person-centered** therapy]

12. The Lombard League was formed to oppose this ruler. For ten points each:

[10] Name this Holy Roman Emperor who died on his way to the holy land in the third crusade.

ANSWER: **Frederick Barbarossa** [accept **Frederick I**][prompt on partial answer]

[10] Frederick Barbarossa was joined on that crusade by an English king of this name. His epithet was the Lionheart.

ANSWER: **Richard**

[10] Two political factions formed around the families of the parents of Frederick Barbarossa, the House of Hohenstaufen and the House of Welf. Name either party.

ANSWER: **Guelph**s OR **Ghibelline**s

13. Name some plays by Ben Jonson, for ten points each:

[10] The servant Mosca aids the protagonist of this play, a “sly fox” who fakes illness in order to receive extravagant gifts.

ANSWER: ***Volpone***

[10] This other play follows the hijinks of Quarlous, Littlewit, and Winwife as they attend the title summer festival in London.

ANSWER: ***Bartholomew Fair***

[10] In this play, Dauphine tricks Morose into marrying the title female. It is later revealed that she’s not quiet at all and is actually a boy in disguise.

ANSWER: ***Epicoene***, or The Silent Woman

14. Pierre Boulez cited this work as the awakening of modern music. For 10 points:

[10] Name this symphonic poem that features no percussion except for two antique cymbals and opens with a famous chromatic flute solo. It was based on a poem by Stéphane Mallarmé.

ANSWER: **Prelude to the Afternoon of a Faun**

[10] *Prelude to the Afternoon of a Faun* was composed by this French composer, who set a poem by Paul Verlaine to music in his *Clair de Lune*.

ANSWER: Claude(-Achille) **Debussy**

[10] This other work by Debussy includes movements like "Dialogue of the wind and the sea" and “Play of the Waves.”

ANSWER: La **Mer**

15. Edwin Upton Curtis was the key agitator of this event that Mayor James Peters failed to stop. For ten points each,

[10] Name this event that grew out of discontent with low wages and 70-plus hour work weeks, in which the AFL tried to organize the titular group.

ANSWER: **Boston Police** Strike

[10] This man was the governor who broke the Boston Police Strike. He would later be elected as Vice President running with Warren Harding and as president in 1924.

ANSWER: Calvin “Silent Cal” **Coolidge**

[10] Coolidge’s Vice President was this man whose namesake plan meant to deal with World War I reparations and whose nap allowed the Senate to reject the nomination of Charles Warren as Attorney General.

ANSWER: Charles **Dawes**

16. Answer some questions about ancient comedic theater, for ten points each:

[10] Perhaps the most notable purveyors of Old Comedy was this playwright, who wrote *The Clouds* and *Lysistrata*.

ANSWER: **Aristophanes**

[10] This comic playwright wrote about a slave helping his master rescue his love in *Pseudolus* and about Euclio in *Aulularia*.

ANSWER: **Plautus**

[10] In this play, Pan causes Sostratus to fall in love with the daughter of the angry old man Knemon. It was written by Menander.

ANSWER: *The* ***Grouch*** [or ***Dyskolos*** or ***Old Cantankerous*** or *The* ***Curmudgeon***]

17. Answer some questions about very bad ideas about how to behave in a chemistry lab for 10 points each.

[10] A simple way to ruin your experiment and burn down your school is to leave the flame on this device lit when not in use. This device mixes atmospheric oxygen with a continuous supply of natural gas.

ANSWER: **Bunsen Burner**

[10] When combining this chemical and water, you should not pour the water into this substance. If you do, it will bubble and spit at you, causing burns because this compound is found along with lead in car batteries.

ANSWER: **Sulfuric Acid**

[10] If you were determined to react bleach and ammonia, which react to form chloramine and hydrazine, you should make sure to conduct your experiment in one of these devices, designed to keep toxic vapors from poisoning intrepid chemists.

ANSWER: **Fume Hood** [prompt on "ventilator"]

18. One product this company produces is the Vaio computer, and this company also sponsors a professional tennis tournament in Miami. For 10 points each:
[10] Identify this company whose current premier product is a video game system, whose exclusive titles are *Metal Gear Solid 4: Guns of the Patriots* and *Heavy Rain*.
ANSWER: **Sony**
[10] Sony’s most recent handheld release is this video game system with such titles as *Dynasty Warriors Next* and *Wipeout 2048*. This system has also been heavily criticized for its extremely short 3 hour battery life, and lack of software.
ANSWER: **PS Vita** [Accept **Playstation Vita**. Prompt on “PSP 2.0” or “PSP 2”. Do not accept “PSP”]
[10] Perhaps the best game on the PS Vita is the most recent game in this installment subtitled *Golden Abyss*. In this series, Nathan Drake is a treasure hunter who looks for lost artifacts in such locations as Shangri-La and El Dorado.
ANSWER: ***Uncharted*** series

19. This figure killed the children of Amphion after her mother was insulted by that figure’s wife, Niobe. For ten points each:

[10] Name this twin sister of Apollo and daughter of Leto.

ANSWER: **Artemis**

[10] Artemis is also associated with this celestial entity. Another deity that represents this body is Selene.

ANSWER: **moon**

[10] One Egyptian moon god is this one, who is depicted with the head of an ibis, holding a wand called a Was, and an ankh.

ANSWER: **Thoth**

20. Answer some questions about a certain optical phenomenon for 10 points each.

[10] First, name this process by which light waves bend around an obstacle. This explains why light shown through a slit acts a source in all directions.

ANSWER: **Diffraction**

[10] Shining light through two closely spaced parallel slits causes a pattern due to this process, by which light waves at different phases interact either constructively or destructively.

ANSWER: **Interference**

[10] Resolving two separate point sources through their interference relies on this criterion, which states that the source are resolvable if the distance between their peaks is at least the radius of the Airy disk.

ANSWER: **Rayleigh** Criterion