



HSAPQ

High School Academic Pyramid Questions

2008-2009
ACF-Format Set #3

Round 8

Tossups

1. An algorithm that uses this data structure can be used to do a topological sort and has an iterative deepening form. Divide and conquer algorithms can be implemented iteratively using one of these, and the alternative to heap-based memory allocation is based on one of these. They are used to implement Reverse Polish notation calculations as well as the aforementioned (*) depth-first search, and their fundamental operations are push and pop. For 10 points, name this last-in, first-out data structure, in which adds and removes both occur on the “top.”

ANSWER: stacks

2. This man lost his 1980 gubernatorial reelection bid to Frank White, and he signed the Family and Medical Leave Act into law. His commerce secretary Ron Brown died in a plane crash. This president launched Operation Desert Fox due to Iraq's interference with United Nations inspectors, and signed (*) NAFTA into law, though his presidency was plagued by the Whitewater affair. For 10 points, name this man who defeated Ross Perot and George H.W. Bush to win the presidential election of 1992.

ANSWER: William Jefferson “Bill” Clinton

3. Genoese rule of this polity came following a nationalist rebellion led by Sampiero Corso, and Andrea Doria quelled a revolt here. James Boswell wrote "An Account of" this place, where Seneca the Younger was exiled after being implicated in Piso's Conspiracy. Democracy was established and the vendetta was suppressed here under the liberal rule of Pascquale Paoli. A man (*) born here went on to win at Austerlitz before his exile to St. Helena. For 10 points, name this Mediterranean island, the birthplace of Napoleon Bonaparte.

ANSWER: Corsica

4. The first of these compositions was controversial for beginning with a B-F tritone. One of them was the first orchestral work to have a separate line for the double bass, and an unofficial one is called *Wellington's Victory*. Brahms' first symphony is often called the (*) tenth of these pieces, and one of them in D minor sets the poem “An die Freude.” One begins with three Gs followed by an E flat, while another was originally dedicated to Napoleon, the *Eroica*. For 10 points, name these works that include the *Pastoral* and the *Choral*, a set of nine works by a deaf composer.

ANSWER: Ludwig von Beethoven's symphonies [prompt on symphonies; or works of Beethoven; or word equivalents]

5. Stock nomenclature is used to designate this value for the central atom of a complex. Latimer and Frost-Ebsworth diagrams represent the potential difference between atoms with different values of this number. Due to the presence of an oxygen-oxygen bond, this value is (*) negative one for oxygen in hydrogen peroxide. When this number decreases for a species, reduction has occurred. For 10 points, name this number that represents the number of electrons an atom gains or loses when forming a chemical bond, which is useful when balancing redox reactions.

ANSWER: oxidation number [or oxidation state]

6. This theory was modified by Clayton Alderfer in his essay “Existence, Relatedness, and Growth.” Put forth in *Toward a Psychology of Being*, its creator studied “exemplary people” such as Eleanor Roosevelt. Typically represented pictorially by a (*) pyramid, its originator claims that lower levels must be reached before one can begin to reach higher levels. Its highest level is achieved when one becomes all he is capable of being and is known as self-actualization. For 10 points, name this organization of human requirements first postulated by Abraham Maslow.

ANSWER: Maslow’s hierarchy of needs

7. The base of one work by this artist is inscribed with "The victor is whoever defends the fatherland." Another work by this man is located in front of the Church of Saint Anthony in Padua, and features a man nicknamed "Honeyed Cat." His other works include a wood statue of (*) Mary Magdalene, and a relief that used the technique *stiacciato*, *St. George and the Dragon*. For 10 points, name this Italian sculptor of *Gattamelata* who depicted a figure wearing a laurel-trimmed hat and standing near the severed head of Goliath in his bronze statue of David.

ANSWER: Donatello [or Donato di Niccolò di Betto Bardi]

8. This author fictionalized himself as a novelist who uses the poetry of Blake to help teach his son Eeyore in *Rouse Up O Young Men of the New Age*. In another of his novels, Takashi trains young men to play soccer, before leading them in a rebellion against a Korean known as "The Emperor." This author of (*) *Nip the Buds, Shoot the Kids* won the Akutagawa prize for his story "The Catch." For 10 points, name this Nobel Prize-winning Japanese author of *The Silent Cry* and *A Personal Matter*.

ANSWER: Oe Kenzaburo [accept in reverse order]

9. They are located on structures whose types include foliate, fungiform, and circumvallate, the last type of which are associated with Ebner's glands, and are localized to areas in front of the sulcus terminalis. A person typically has between 2,000 and 5,000 of these barrel-shaped structures, which are located on (*) papillae and can be used to detect umami. For 10 points, name these clusters of cells that are found on the lining of the mouth and on the tongue, used for detecting gustatory sensations such as bitterness, sourness, sweetness, and saltiness.

ANSWER: taste buds

10. After being defeated at Sar-e Pol, this man lost Samarkand and Fergana, and he seized Kabul in 1504. At Agra, this man created the Ram Bagh garden along the Yamuna River, and on the invitation of Alam Khan and Dawlat Khan, this man defeated Ibrahim Lodi at (*) Panipat. He left the empire he founded to his son Humayun, and he was the grandfather of Akbar the Great. For 10 points, name descendant of Timur the Lame and Genghis Khan, the founder of the Mughal Dynasty.

ANSWER: Babur [or Babar; or Baber]

11. Its music video contains an image of a dove destroyed by a wrecking ball and an actual dove being killed by a hawk. The speaker can “design an engine/sixty-four miles to a gallon of gasoline” and “hand out a million vaccinations” and earlier states that he “knows all the words to (*) ‘De Colores.’” The speaker begs “look at me, look at me” and later says that he can “guide a missile by satellite” as well as “end the planet in a holocaust,” all because he can ride a bike without using the title objects. For 10 points, name this single from *Fight With Tools* by Flobots.

ANSWER: “Handlebars”

12. "The Myth of the Given" is discussed in a work by one philosopher of this school, Wilfrid Sellars, and a proponent of it wrote *Philosophy of the Mirror of Nature*. In addition to Richard Rorty, it was espoused in a work attacking tenets of the logical positivists, Quine's *Two Dogmas of Empiricism*. (*) *Democracy and Education* was written by John Dewey, a proponent of it, and it was outlined in *How to Make Our Ideas Clear* by Charles Peirce. For 10 points, name this philosophy that seeks truth in practical experience, discussed in a tract by William James.

ANSWER: pragmatism [accept pragmaticism]

13. One episode of this novel sees a zealous man named Joseph sic his dogs on a character who borrows his lantern. This novel's story is partly recounted by Ellen Dean after one character is startled to grasp the cold hand of a girl after trying to break a fir branch. One character is brought home from (*) Liverpool along with a whip and a violin, much to Hindley's chagrin. This novel is told to Mr. Lockwood, the renter of Thrushcross Grange. For 10 points, name this novel in which Heathcliff loves Catherine Earnshaw, a work of Emily Bronte.

ANSWER: Wuthering Heights

14. One god who took this form possessed the thirteen-thousand-pound Compliant Rod and became angry when he learned that his title meant "stable-boy." After stealing the peaches of immortality from the Jade Emperor, that god was assigned to guard the monk Tripitaka during a trip to India. Another god who took the form of this animal jumped from (*) India to Sri Lanka during his time fighting the demon Ravana in alliance with Rama. For 10 points, the Chinese figure Sun Wukong and the Indian deity Hanuman both appeared as what sort of primate?

ANSWER: monkeys

15. The transverse type of this effect was used in the Ives-Sitwell experiment and is a relativistic phenomenon attributable to time dilation. Its classical form is responsible for its namesake broadening in spectral lines, and involves multiplication by a factor of v over v plus v sub s , where v is absolute velocity and v sub s is the relative speed of the (*) source. Applied to light to explain the redshift of distant galaxies, for 10 points, name this effect in which the observed frequency of a wave is shifted by relative motion between the source and observer.

ANSWER: Doppler effect [accept Doppler shift; do not accept "redshift" or "blueshift"]

16. This author created the characters of Robert de Saint-Loup, who marries Gilberte, and the violinist Charles Morel, who has an affair with the Baron de Charlus. Another of this author's characters becomes obsessed with Albertine Simonet, and is shocked to discover that the Prince of (*) Guermantes is a Dreyfusard. This author's magnum opus begins with the narrator recalling his childhood after tasting a madeleine. For 10 points, name this author whose novels *Sodom and Gomorrah*, *Time Regained*, and *Swann's Way* are included in his *In Search of Lost Time*.

ANSWER: Marcel Proust

17. This river passes through the Thal and Thar deserts, and the Khyber Pass runs parallel to one of its tributaries. It is fed by the confluence of the Chenab and Sutlej rivers, and, along with the Brahmaputra, it flows from Mount Kailash. The city of Hyderabad lies near this river's delta on the (*) Arabian Sea. It is spanned by the Tarbela Dam near Islamabad and passes through the Punjab plain and Kashmir. For 10 points, name this river that originates in Tibet and flows through Pakistan, the namesake of the earliest known civilization of the Indian subcontinent.

ANSWER: Indus River [or Sindhu; or Abasin; or Nilou; or Sengge Chu; or Yindù Hé]

18. This man's venture into newspapers was countered by John Fenno's publication. The title creature was "born to sip the lake or spring" in his "To a Honey-Bee," and this author lamented the "frail duration of flower" in writing of the "comely" buds of "The Wild (*) Honey-Suckle." He addressed the title people as "traitors" in writing of "the various horrors" of "The British Prison-Ship," and another of his poems discusses the "soul's eternal sleep." For 10 points, name this author of "The Indian Burying Ground," known as the poet of the American Revolution.

ANSWER: Philip Morin Freneau

19. One person in this painting writes against her knee while a woman and bearded man look on. In the bottom left of this work, a turbaned man looks over the shoulder of another man reading. Donato Bramante served as the model for another figure in this work, who is drawing on a slate tablet. That person, (*) Euclid, stands in the bottom left of this painting with Ptolemy and Zoroaster. Diogenes lies in the center, while the two most prominent figures wear contrasting pink and blue clothes. For 10 points, name this Raphael fresco featuring Aristotle and Plato.

ANSWER: *The School of Athens*

20. A papal approval for a crusade prompted the Desmond rebellion in this polity. Its National Land League sought rights for tenant farmers, and its "National Invincibles" killed Thomas Henry Burke and Lord Cavendish in this country's Phoenix Park murders. One event here hit its low point during "Black '47" and saw its citizens escape via (*) "coffin boats." The Troubles, a terrorist struggle over six counties in its north, led to the formation of its namesake Republican Army. For 10 points, name this island, home to the Easter Uprising and a namesake potato famine.

ANSWER: Ireland

21. After an unsuccessful invasion attempt, this man was forced to stay at the so-called "University of Ham." He was exiled to America after an attempt to lead a coup at the Strasbourg garrison, and Felice Orsini's assassination attempt inspired him to ally his nation with Piedmont in the war for (*) Italian independence from Austria. Cinco de Mayo celebrates the driving out of his puppet Maximilian from Mexico, and he disastrously lost the Battle of Sedan. For 10 points, name this French emperor during the Franco-Prussian War, a relative of the loser at Waterloo.

ANSWER: Napoleon III [or Charles Louis-Napoleon Bonaparte; prompt on Napoleon]

22. In one section of this work, an angel carves the letter "P" on the narrator's forehead seven times. In another section, the narrator rides Geryon to Malebolge, where flatterers walk in excrement. This poem's narrator encounters Count Ugolino, Guido de (*) Montefeltro, and Francesca de Rimini after being lost in a dark wood and passing through a gate inscribed "Abandon all hope, ye who enter here." The narrator is led through Hell and Purgatory by Virgil and through Heaven by Beatrice in, for 10 points, what epic poem by Dante?

ANSWER: *The Divine Comedy* [or *La Divina Commedia*; accept Purgatorio before Geryon]

23. This man concluded that adding dehydrated salts to a solution does not increase the volume of solution in a paper grouped with "On Microcosmic Salt." He concluded that when pressure and temperature are held constant, the heat of a fluid is proportional to its weight, in a section of *A New System of Chemical Philosophy*. The unit of (*) atomic mass is named for this man, who concluded that all elements are made of atoms and that atoms combine to form chemical compounds. For 10 points, name this chemist with a namesake law of partial pressures.

ANSWER: John Dalton



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Bonuses

1. Name some authors from the Hoosier state, for 10 points each.

[10] This author of the *Penrod* series of novels penned *Alice Adams* and *The Magnificent Ambersons*.

ANSWER: Newton Booth **Tarkington**

[10] This “Hoosier Poet” wrote about “The Old Swimmin’ Hole” in addition to “Leven Other Poems” before he hit it big with a poem about a lovable parent-less girl, *Little Orphant Annie*.

ANSWER: James Whitcomb **Riley**

[10] This author told of Frank Cowperwood in *The Bulwark* and *The Financier*, and also wrote *Sister Carrie* and a novel about Clyde Griffiths killing Roberta Alden, *An American Tragedy*.

ANSWER: Theodore Herman Albert **Dreiser**

2. The center of this painting depicts a dog looking at a man dressed in red and holding a walking stick. For 10 points each:

[10] Name this painting featuring flying cherubs and numerous people preparing to board a boat to take the titular trip.

ANSWER: **Embarkation for Cythera** [accept any answer including the word **Cythera** and the concept of a **trip**]

[10] *Embarkation for Cythera*, by Jean-Antoine Watteau, is a work from this art genre of the eighteenth century whose name comes from a French word meaning “shell-covered rockwork.”

ANSWER: **Rococo**

[10] This other Rococo artist depicted a woman in a pink dress flinging a slipper into the air in his *The Swing*.

ANSWER: Jean-Honoré **Fragonard**

3. The rate of cooling and temperature of magma determines chemical composition and texture of the resulting rock. For 10 points each:

[10] Name the Y-shaped chart geologists use to predict which minerals can form and how large the crystals can be when magma solidifies.

ANSWER: **Bowen’s reaction series**

[10] This green mineral is at the top of the leftward “discontinuous branch” of Bowen’s reaction series. It comes in forsterite and fayalite varieties and is known as peridot when of gem quality.

ANSWER: **olivine**

[10] This mineral at the bottom of Bowen’s reaction series consists of silicon dioxide. It is a seven on the Mohs scale.

ANSWER: **quartz**

4. Indonesia is the world's largest archipelago. Identify these Indonesian islands, for 10 points each.

[10] This most populous Indonesian island is also the most populous island in the world. It is home to the capital of Jakarta.

ANSWER: **Java** [or **Jawa**]

[10] The eastern half of this Indonesian island, which was a Portuguese colony until 1975, was granted independence in 2002 after several decades of guerrilla warfare.

ANSWER: **Timor**

[10] This oddly-shaped Indonesian island lies across the Makassar Strait from Borneo. It is sometimes referred to as Sulawesi.

ANSWER: **Celebes**

5. Minor members of this group included Argestes, a northwesterly one who helped the Argonauts. For 10 points each:

[10] Name these sons of Astraeus, including Zephyrus and Boreas.

ANSWER: the **winds**

[10] This Thessalian king was made ruler of the winds and kept them in a bag on his floating island.

ANSWER: **Aeolus**

[10] Aeolus gave the bag of winds to this hero, who was trying to reach Ithaca in his namesake epic, but this man's crew thought the bag contained treasure and opened it at sea.

ANSWER: **Odysseus** [or **Ulysses**]

6. For 10 points each, name these nineteenth century European authors.

[10] This French poet spurred the Symbolist movement with his poetry collection *The Flowers of Evil*.

ANSWER: Charles **Baudelaire**

[10] This Frenchman wrote about Javert's search for Jean Valjean in *Les Miserables*.

ANSWER: Victor-Marie **Hugo**

[10] This nineteenth century Italian romantic poet wrote collections like *Zibaldone* and *Pensieri* as well as poems like "All'Italia" and "The Infinite."

ANSWER: Giacomo **Leopardi**

7. During this novel, the title character's bride Elizabeth is murdered on their wedding night. For 10 points each:

[10] Name this novel subtitled "the modern Prometheus," written about a scientist who succeeds in animating matter to life at Ingolstadt.

ANSWER: **Frankenstein**, or, *The Modern Prometheus*

[10] This author of *Valperga* wrote *Frankenstein*.

ANSWER: **Mary Wollstonecraft Shelley** [prompt on "Shelley"]

[10] *Frankenstein* is framed by the letters of this scientist to his sister. He rescues Victor Frankenstein and brings him aboard his ship in the Arctic.

ANSWER: **Robert Walton** [either or both names acceptable]

8. Its founder's writings are known as the *Gathas*, and his posthumous sons, Oshetar, Oshetarmah, and Saoshyans, are the three saviors that will appear at the Endtime. For 10 points each:

[10] Name this religion founded by an Iranian prophet that became the official religion of the Persian Empire.

ANSWER: **Zoroastrianism**

[10] According to Zoroaster, this supreme god created the spirits Spenta Mainyu and Angra Mainyu as well as the universe.

ANSWER: **Ahura Mazda** [or **Ormizd**; or **Ormazd**]

[10] This sacred book of Zoroastrianism contains the teachings of Zoroaster and is composed of the *Gathas*, *Yasna*, and *Vendidad*.

ANSWER: **Avesta** [or **Zend-avesta**]

9. It is typically measured with units of Newtons over Coulombs, showing that this quantity times charge yields electric force. For 10 points each:

[10] Identify this vector function whose "lines" always point away from positive charges and toward negative charges. Placing an object in it causes birefringence in the Kerr effect.

ANSWER: **electric field** [prompt on **E**]

[10] This related quantity is equal to the integral of electric field dotted with area, and measures how much electric field "passes across" a surface. It appears in Gauss' Law.

ANSWER: **electric flux** [prompt on **flux**; prompt on **psi**]

[10] Electric field also appears multiplied by charge in the formula for this force, which sums the electric and magnetic forces experienced by a particle as q times E plus q times v cross B .

ANSWER: **Lorentz** force

10. He was the leader of the Black Consciousness movement and the subject of the film *Cry Freedom*.

For 10 points each:

[10] Name this South African activist who became a martyr for the anti-apartheid movement after dying from injuries suffered while under police custody in 1977.

ANSWER: Stephen **Biko**

[10] Biko's Black Consciousness movement inspired the 1976 protest in this township. Police here fired on children who were protesting school taught in English instead of Afrikaans.

ANSWER: **Soweto** [accept **Soweto** Uprising/Massacre/other equivalents]

[10] Five former police officers confessed to killing Stephen Biko in 1997 while testifying before the Truth and Reconciliation commission, which was led by this South African cleric.

ANSWER: Bishop Desmond Mpilo **Tutu**

11. Some of the NBA's best franchises have tall, sharp-shooting redheads at the end of their benches.

For 10 points each:

[10] Along with teammate Roger Mason Jr., this redheaded center has lit up the NBA's three-point percentage leaderboard in 2008-09.

ANSWER: Matt **Bonner**

[10] Bonner plays for this NBA team, whose coach Gregg Popovich usually inserts star Manu Ginobili off the bench.

ANSWER: **San Antonio Spurs** [accept either]

[10] Another redheaded three-point specialist is Brian Scalabrine, a fan-favorite benchwarmer who gets garbage-time minutes for this NBA franchise, whose namesake "Threeparty" consists of Garnett, Pierce, and Allen.

ANSWER: **Boston Celtics** [accept either]

12. This genetic disorder arises from the body's inability to synthesize tyrosinase, and those who have the related disease vitiligo suffer more localized effects. For 10 points each:

[10] Name this autosomal recessive trait in which the absence of pigment in the choroid results in red pupils, while the absence of pigment elsewhere results in white skin and hair.

ANSWER: **albinism** [prompt on "albino"]

[10] The inability to synthesize tyrosinase results in a failure to produce this dark biological pigment. Increase of this pigment in the epidermis due to exposure to sunlight causes tanning.

ANSWER: **melanin**

[10] Much like dominant alleles of genes, which only mask their recessive counterparts, the gene for albinism is an example of this type of gene that masks the phenotype of other genes.

ANSWER: **epistatic** gene [or **epistasis**]

13. Nicholas I personally intervened to allow the performance of this play. For 10 points each:

[10] Name this Nikolai Gogol satire about Khlestakov, who is given thousands of rubles after being mistaken for the title government official.

ANSWER: *The **Inspector General*** [accept *The **Government Inspector***; or **Revizor**]

[10] In the fourth act of this Russian play, Lopakhin is unable to propose to Varya, and orders his workers to chop down the titular forest of Madame Ranevskaya.

ANSWER: *The **Cherry Orchard*** [or **Vishniovy Sad**]

[10] This author contrasted Belaev with Rakitin, a type of superfluous man, in his play *A Month in the Country*. He also wrote a novel about the nihilist Bazarov.

ANSWER: Ivan **Turgenev**

14. Henry Hobson Richardson designed the Marshall Field Wholesale Store in this city, whose namesake school of architecture included Louis Sullivan as a member. For 10 points each:

[10] Name this city that is home to the Frank Lloyd Wright designed Robie House, in addition to the Sears Tower skyscraper.

ANSWER: **Chicago**

[10] The city of Chicago is home to a large red stable entitled *Flamigo* that was created by this man, who also created the mobile *Lobster Trap and Fish Tail*.

ANSWER: Alexander **Calder**

[10] An artist named Judy Chicago created this installation that features a triangular table with 39 place settings, and a porcelain floor that is inscribed with 999 women's names.

ANSWER: *The **Dinner Party***

15. His contributions to mathematics include his namesake embedding theorem, though he is better known for his contributions to game theory. For 10 points each:

[10] Name this subject of *A Beautiful Mind* whose namesake equilibrium is central in the study of game theory, work which won him the 1994 Economics Nobel.

ANSWER: John Forbes **Nash**

[10] This Indian economist is best known for his work *Collective Choice and Social Welfare*.

ANSWER: Amartya **Sen**

[10] This other economist published his namesake theorem dealing with externalities in his "The Problem of Social Cost," and also wrote "The Nature of the Firm."

ANSWER: Ronald **Coase**

16. They form through a condensation reaction, and their resonance gives them roughly forty percent double bond character. For 10 points each:

[10] The C-terminus and N-terminus of an amino acid are linked by what type of bond?

ANSWER: **peptide** bond

[10] Catecholamines like epinephrine and dopamine are synthesized from this aromatic amino acid. PKU sufferers cannot convert phenylalanine into this amino acid.

ANSWER: **tyrosine**

[10] Peptide chains can be cleaved at the carbonyl side of tyrosine and phenylalanine residues by this enzyme.

ANSWER: **chymotrypsin**

17. Many settings of this religious ritual involve the cantus firmus *L'homme arme*, and it is made up of the Kyrie, Gloria, Credo, Sanctus, and Agnus Dei. For 10 points each:

[10] Name this Catholic ritual that is frequently set to music. The Requiem is a specific kind for the dead.

ANSWER: the **Mass** [or **Messa**; or **Messe**]

[10] This composer of a mass based on his own *O Magnum Mysterium* motet also wrote a mass named for Pope Marcellus.

ANSWER: Giovanni Pierluigi da **Palestrina**

[10] This composer of the *Mass of the Chapel* is better known for writing the massive madrigal *The Combat of Tancred and Clorinda* and one of the earliest operas, *L'Orfeo*.

ANSWER: Claudio **Monteverdi**

18. They lost their national identity when the Byzantine general Narses defeated their leader Totila in 552 CE. For 10 points each:

[10] Name this eastern Germanic group who were led at one point by Odoacer.

ANSWER: **Ostrogoths** [prompt on **Goths**; prompt on **Eastern Goths**]

[10] This king of the Ostrogoths conquered Italy and murdered Odoacer, and he had the philosopher Boethius executed on suspicion of treason.

ANSWER: **Theodoric I** [or **Theodoric the Great**]

[10] This Italian city was the capital for Odoacer and Theodoric, and Honorius made it the capital of the Western Empire in 402 CE.

ANSWER: **Ravenna**

19. This document was issued on August 14, 1941, off the coast of Newfoundland by Winston Churchill and Franklin Roosevelt. For 10 points each:

[10] Name this charter that called for, among other things, freedom of the seas and freedom from want and fear. This document was incorporated by the 1942 Declaration of the United Nations.

ANSWER: **Atlantic Charter**

[10] The United Nations was established at this 1945 conference, which built upon earlier objectives set forth at Yalta and Dumbarton Oaks. It ended with the signing of the U.N. Charter.

ANSWER: **San Francisco** Conference

[10] This temporary secretary-general at the San Francisco Conference was later accused of giving Whittaker Chambers classified documents that were to be transferred to a Soviet Agent.

ANSWER: Alger **Hiss**

20. The Stefan-Boltzmann law relates their radiant flux to temperature. For 10 points each:

[10] Identify these hypothetical objects, common in physics, which absorb all light that falls on them.

ANSWER: perfect **black body**

[10] Two approximations to the intensity of a black body's radiation at an arbitrary temperature were given by Planck's Law and the Rayleigh-Jeans law. This third law predicted that the wavelength of peak intensity was inversely proportional to temperature.

ANSWER: **Wien's** displacement law

[10] One of the downfalls of the Rayleigh-Jeans law was that it predicted that intensity would increase without bound at small wavelengths, a phenomenon known as this.

ANSWER: **ultraviolet catastrophe**

21. It is divided into acts entitled "Daily Life," "Love and Marriage," and "Death and Loss." For 10 points each:

[10] Name this play set in Grover's Corners, which revolves around George Gibbs marrying Emily Webb. When Emily dies, she finds she can only pity the living for not valuing life.

ANSWER: **Our Town**

[10] This author of a work in which Samuele gets involved with a group of pagan gods entitled *The Cabala* wrote *Our Town* as well as *The Bridge of San Luis Rey* and *The Skin of Our Teeth*.

ANSWER: Thornton Niven **Wilder**

[10] In this novel by Thornton Wilder, Clodia Pulcher hates Julius Caesar for pardoning her of blasphemy, and it deals with the lead-up to Caesar's assassination on the title day.

ANSWER: *The* **Ides of March**

22. Named for a Bohemian spa town, these resolutions were issued following the assassination of August Kotzebue by Karl Sand. For 10 points each:

[10] Name these 1819 decrees that attempted to repress liberal political activities.

ANSWER: **Carlsbad** Decrees [accept reasonable equivalents for "decrees"]

[10] This conservative Austrian foreign minister was the instigator of the Carlsbad Decrees. He was driven from power by the Revolution of 1848.

ANSWER: Klemens von **Metternich**

[10] Metternich was one of the key figures at this meeting, which met from September 1814 to June 1815 and attempted to establish a balance of power following the Napoleonic Wars.

ANSWER: **Congress of Vienna**