PARFAIT II Round 9

Princeton

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1 Princeton Tossups, Round 9

1. Shostakovich reportedly liked this instrument's "duet" with the cello in Prokofiev's *S*infonia Concertante, so he gave it a prominent role in the second movementof his own *F*irst Cello Concerto. This instrument was used by Gustav Holst in *T*he Planets to evoke the ethereal nature of "Neptune, the Mystic", and its inventor, Auguste Mustel, named it for its heavenly sound, similar to but softer than that of the glockenspiel. Consisting of a keyboard connected to felt hammers which strike a series of small metal bars, this is, For ten points , what musical instrument, more famously used by Bartok in a composition for it, strings, and percussion and by Tchaikovsky in the *D*ance of the *S*ugar Plum Fairy.
   Answer: <u>celesta</u>

2. This mythological figure is the subject of a 1961 opera by English composer Michael Tippett and his death is reenacted by the First Player in Act II of *H*amlet. Originally named Podarces, he changes his name to mean "ransomed one" after his father and older brothers are killed by Heracles but he is spared. His daughter Polyxena is slain after the ghost of Achilles demands her as a companion in the Underworld. Earlier, heassembles "twelve robes, twelve cloaks, twelve blankets, twelve capes and shirts, ten bars of gold, two tripods, four cauldrons, and a Thracian cup" and is guided by Hermes to his enemies' camp to ransom his son's body. For ten points , name this father of Creusa, Helenus, and Cassandra, husband of Hecuba, and king of Troy.
   Answer: **King <u>Priam</u> of Troy**

3. In December 2005, thieves stole his *L*H608, a 2.1 ton bronze statue, from his namesake foundation in Much Hadham village in Hertfordshire, England, possibly for melting down as scrap metal. Though he started his career on direct carvings, he transitioned to bronze castings almost exclusively after World War II due to being offered commissions for works on massive scales. Such monumental works include *K*nife Edge – Two Pieces that sits outside the House of Lords in London, as well as the *R*eclining Figure in a reflecting pool at Lincoln Center Plaza. For ten points , name this British modernist sculptor, famous for his pierced reclining figures that often contain hollow voids who shares his last name with the actress who portrayed Minneapolis journalist Mary Richards.
   Answer: **Henry Spencer <u>Moore</u>**

4. This writer's hatred of Freud can be seen in many of his fictional works which are full of clever jabs at an arch-enemy whom he dubbed the "Viennese quack." Also a brilliant chess player, he composed chess problems for a Berlin newspaper, and wrote his third novel about the nervous breakdown of a chess Grandmaster. Another novel revolves around the chaotic life of a Russian émigré professor adjusting to American life. Those two novels, *T*he Luzhin Defense and *P*nin, are less famous than a 1962 novel narrated by the madman Charles Kinbote about the publication of a poem by John Shade. For ten points , name this lepidopterist and author of *I*nvitation to a Beheading, *P*ale Fire, and *L*olita.
   Answer: Vladimir <u>Nabokov</u>

5. In response to it, Poland annexed the disputed territory of Teschen while Edvard Benes, the successor to Tomas Masaryk, resigned from his country's presidency and went into

exile. In two face-to-face meetings that preceded it, at Berchtesgaden on September 15th and Godesberg on September 22nd, the instigator's increasing demands for annexation and plebiscites on the basis of self-determination were rejected. However, on September 29th, at a four-way conference which also included French Prime Minister Edouard Daladier and Benito Mussolini, the western powers gave in to all demands to ensure "peace in our time." For ten points , identify this notorious 1938 agreement which gave the Sudetenland to Germany but failed to appease Hitler.

Answer: <u>Munich</u> Conference or <u>Munich</u> Pact or <u>Munich</u> Agreement

6. On the back wall, a hanging clock shows that it is past midnight, while a generic painting hangs on the wall on the right. The canvas is horizontally divided into three sections with the ceiling painted green, walls in crimson-red, and a floor with bright yellow boards whose lines sharpen the painting's perspective and lead to a small opening in the back wall. Three lamps hanging from the ceiling are surrounded by large circular yellow brushstrokes while a green pool table stands idle in the middle of the room. Two tables on the right are empty but six patrons remain in this eating establishment on the Place Lamartine in the south of France. For ten points , identify this 1888 masterpiece from the Arles period of Vincent van Gogh.

Answer: The <u>Night Café</u> in the Place Lamartine, Arles or <u>Le Café de nuit</u>

7. He was one of the co-inventors of "Rockoons", rockets launched at high altitudes after being lifted by balloons, with which he studied the cause of Aurora Borealis. Allegedly, he used heated cans of orange juice to solve the problem of the Rockoons' firing mechanism malfunctioning due to the low temperatures of the upper atmosphere. His crowning achievement, which earned him a spot on the cover of the May 4, 1959 issue of TIME magazine, came when an instrument he designed and placed aboard the first U.S. satellite, *E*xplorer One, detected his namesake phenomenon. For ten points , what space pioneer and University of Iowa professor, who died on August 9, 2006, was the discoverer of a belt of radiation surrounding the earth?

Answer: James <u>Van Allen</u>

8. The several parts of this poem are connected by imagery of the "fading", "dying", and "perpetual" stars as well as by references to various otherworldly kingdoms. In Section IV, "eyes reappear" bringing sight to those "gathered on this beach of the tumid river", an allusion to the role of Beatrice's eyes in Dante's *P*urgatorio. The second epigraph, "A penny for the Old Guy," as well as the titular group in "headpiece filled with straw" are references to the burning effigy of Guy Fawkes, while the first epigraph comes from Conrad's *H*eart of Darkness. For ten points , what work also includes a line about a "prickly pear" and a stanza in which the world ends "not with a bang but a whimper", a 1925 poem of T.S. Eliot.

Answer: "The <u>Hollow Men</u>"

9. It was the site of a July 1758 battle in which General Abercromby attacked with a force of 16,000 troops including the Scottish "Black Watch" regiment, but was unable to break through a small French force dug in at this location. Arthur St. Clair was court-martialed for losing it after allowing British troops to bring their artillery to the top of Mount Defiance, but it was destroyed by the British three months later when they withdrew to

Canada after the defeat at Saratoga. The source for the cannons and gunpowder which Henry Knox hauled to the siege of Boston in 1775 was, For ten points , which fortress, on the shores of Lake Champlain which was famously taken without a shot by Benedict Arnold, Ethan Allen, and the Green Mountain Boys.

Answer: Fort <u>Ticonderoga</u> (or Fort <u>Carillon</u>)

10. The protagonist of this novel visits a library to find a book on how to commit painless suicide, but is attacked after being recognized by an old man whose books on crystallography he had ruined years earlier. In the last chapter, which was omitted by its first U.S. publisher, the main character meets his old pal Pete who is now married, and also decides to settle down. Earlier, as prisoner 6655321 at Staja 84F, he is chosen for Reclamation Treatment using Ludovico's Technique, a treatment which turns him into the title object, and prevents him from listening to the music of his beloved "Ludwig Van." Narrated in the "nadsat" dialect, this is, For ten points , what 1962 novel about the violent teenager Alex, written by Anthony Burgess.

Answer: A <u>Clockwork Orange</u>

11. The complexity class that uses Turing machines of this type, where at least half of all computation paths accept for true inputs and all for false inputs, is called RP. If you take the union of RP and coRP, then you have ZPP, a class of algorithms named after a western US city that have expected polynomial run time but are never wrong. This phrase follows "Markov Chain" in the general term for techniques like the Metropolis algorithm, the Gibbs algorithm, and simulated annealing. It can be used to find the integral of an arbitrary curve by throwing darts at the plane and counting the number of darts below the curve vs. the total number of dots. For ten points , what is this class of algorithms that use randomness and is named for the posh, casino filled quarter of Monaco?

Answer: <u>Monte Carlo</u>

12. Abel's identity can be used to compute it for the funamental matrix, which for a set of functions n has the jth derivative of f_i at cell $F_{i,j}$. The characteristic polynomial of a matrix A is obtained by taking this operation on $xI - A$, where I is the identity matrix, and if you have an equation $Ax = c$, you can find x_i by computing it applied A with the ith column substituted by c over it applied to A, a technique called Cramer's rule. For ten points, name this scalar valued function that acts on matrices that, when the matrix represents a parallelogram, gives the area.

Answer: <u>determinant</u>

13. After the two central characters get acquainted on a train on its way to Portofino, the younger character helps thwart the other's engagements with Miss Trumble of Oklahoma and Lady Diana of Palm Beach, but becomes estranged from his mentor leading to a fateful bet. A remake of the 1964 film *B*edtime Story, it ends with another character's return to Beaumont-sur-Mer to introduce her new mark to Chips O'Toole and his whiz kid, Randy Bentwick, the new aliases of the main characters whom she had cheated of $50,000 while pretending to be innocent Janet Colgate, the U.S. soap queen. For ten points , identify this 1988 comedy, directed by Frank Oz and starring Glenne Headly, Michael Caine, and Steve Martin as the title crooks.

Answer: <u>Dirty Rotten Scoundrels</u>

14. Its its isomer's production is facilitated by the enzyme 17-alpha-hydroxysteroid dehydro-genase, though the exact pathway is not known. After it is produced, some of it enters the seminiferous tubules, where it acts on the Sertoli cells with PSH. Primarily produced in the Leydig cells, this steriod's action was first attributed androsterone, one of its metabolites. A schedule III drug in the US with formulat $C_{19}H_{28}O_2$. For ten points , name this male sex hormone that tainted the careers of Mary Decker and Floyd Landis.
    Answer: <u>testosterone</u>
    17b-hydroxy-4-androsten-3-one

15. The month-long Gion Matsuri festival in this city is famous for the Yamahoko-junko, a parade of thirty-two magnificent floats decorated with fabrics from around the world. The Philosopher's Walk is a picturesque cherry tree-lined path between the Eikan-do and Ginkaku-ji temples while Nijo castle contains the extravagant Ninomaru Palace which served as the headquarters in this city of Tokugawa Ieyasu. With a name meaning "capital city", a role it served during the Heian period, it was the long-time residence of the imperial family before they moved to Tokyo during the Meiji Restoration. Left mostly unharmed by World War II, this is, For ten points , what religious center of Japan, also the site of a 1997 protocol on climate change.
    Answer: <u>Kyoto</u>

16. When copying its text by hand, scribes use STaM, a special writing style which employs three crowns called $t$agin above some letters. Sometimes printed in $c$humash (pronounced: hu-MUH-sh) form where it is subdivided into portions called $p$arshiyot, it is more often seen in a form which is read with the help of a special pointer called a $y$ad to avoid oils from the reader's hands damaging the $s$efer parchment. The first of the three parts of the Tanach (pronounced: tuh-NUH-kh), its scrolls are stored in an $a$ron hakodesh or "holy cabinet" and it includes 613 $m$itzvot. For ten points , this is what sacred text consisting of the first five books of the Hebrew Bible.
    Answer: the <u>Torah</u> (prompt on <u>Pentateuch</u>)

17. Its author wrote to Professor Dickenson to say "The mind that becomes soiled in youth can never again be washed clean," which evokes the scene where after a preacher says "the waters that cleanse is free," one of the title character's companions runs up and claims that he was a pirate on the Indian Ocean and now that his life has been turned around, he'll bring other pirates to the path, all thanks to the Pokeville camp meeting. Later, that would be pirate reformer is revealed to Silas as a con by "the runaway," and the tarred and feathered duke and dauphin are run out of town. The title character utters "All right, then, I'll go to hell", as he makes up his mind to help the run-away slave Jim in, for ten points , what 1884 novel of Mark Twain?
    Answer: The <u>Adventures of Huckleberry Finn</u>

18. His political allies, known as the Piagnoni or "Wailers", or the Frateschi, were led by the prominent aristocrats Francesco Valori and Piero Soderini. An ally of Charles VIII, he opposed joining the First Holy League led by the Pope and Ludovico Sforza earning their enmity. Opposing factions included the Arrabbiati and the Campagnacci, five eminent members of which were executed for conspiring against the Republic, an event leading to his downfall. After his protégé Fra Domenico da Pescia failed to go through a trial by fire

in the Piazza della Signoria, his convent of San Marco was besieged by an angry mob and he was captured and hanged. For ten points , name this Dominican friar who effectively ruled Florence for four years after the overthrow of the Medici.

Answer: **Girolamo <u>Savonarola</u>**

19. The last section says that when captured, its subject must be shorn of all clothing because it might be contaminated. Question 14 goes on to state that torture is acceptable, but that any confessions must be confirmed not under duress. Authorized by Summis Desiderantes by Inoccent VIII and written by Johann Sprenger, dean of the University of Cologne in Germany, and Heinrich Kraemer, professor of theology at the University of Salzburg, the first part argues that a disbelief in the subject is heresy, whereas the second part delves into the various types of sorcery, such as varieties of spells and remedies. For ten points , name this comprehensive witch-hunting manual, which, at one point, humorlessly concludes that the Devil has cold semen.

Answer: **<u>Malleus Maleficarum</u>, or The <u>Hammer of Witches</u>, or Der <u>Hexenhammer</u>**

20. Opponents blamed this program for the "scissors crisis" in which the prices of agricultural and industrial goods diverged like open scissor blades as a result of soaring grain production coupled with a shattered industrial infrastructure. Used by Deng Xiaoping as a model for his economic reforms, it permitted entrepreneurs, later derided as its namesake men, to own and operate privately-owned small businesses. Replacing the policy of War Communism after the Kronstadt Rebellion, it was ended abruptly seven years later by the imposition of the first Five Year Plan and mass collectivization byStalin. For ten points , what policy instituted by Lenin in 1921 boosted production by introducing free market forces to much of the Soviet economy.

Answer: **<u>NEP</u> or <u>N</u>ew <u>E</u>conomic <u>P</u>olicy or**

<u>Novaya Ekonomicheskaiya Politika</u>

21. Dodgson's method, which was developed by and named after Lewis Carroll, and Kemeny's rule are both extensions of this concept when no candidate satisfies its namesake's criterion. If all agents have single-peaked preferences on some linear ordering, then there always exists a median agent whose peak choice is one of these. The Borda count is a social choice rule whose winner is not always one while a simple majority vote with three or more choices may fail to produce one because of transitivity cycles which lead to its namesake's paradox. For ten points , a candidate that is preferred pair-wise to every other alternative candidate is named after what French aristocrat and mathematician?

Answer: **<u>Condorcet</u> winner (accept <u>Condorcet</u> rule or <u>Condorcet</u> criterion)**

2 Princeton Bonuses, Round 9

1. Tutored under Visvamitra, he won Sita as his wife by bending the bow of Shiva. For ten points each . . .

    10 Name this hero of an epic Indian poem.
    Answer: <u>**Rama**</u> **(from the Ramayana)**

    10 The Sanskrit version, written by this sage with about 24,000 verses, is the oldest known and most popular version of the Ramayana.
    Answer: <u>**Valmiki**</u>

    10 In the 16th century CE, this poet wrote a Hindi version of the Ramayana. His work, the Ramacharitamanasa, is famous for emphasizing the concept of bhakthi, or loving devotion, and how its practice is a path to salvation.
    Answer: <u>**Tulsidas**</u>

2. Answer some questions about what the Romans called the Mare Germanicum, For ten points each .

    10 The Rhine, Thames, and Elbe rivers all flow into what oil-rich body of water?
    Answer: <u>**North Sea**</u>

    10 What large North Sea sandbank off the coast of Northeast England is an excellent fishing ground and was also the site of a 1904 incident involving the Russian Baltic fleet on its way to disaster at Tsushima Straits?
    Answer: <u>**Dogger Bank**</u>

    10 What passage, located between Norway and the Jutland Peninsula, connects the North Sea to the Baltic Sea?
    Answer: <u>**Skagerrak**</u>

3. Answer the following questions about optics, for ten points each.

    10 For ten points, this principle is a rule for drawing the propagation of light waves. It says that all points on a given wavefront are taken as point sources for the production of spherical secondary waves, called wavelets, that propagate outward with speeds characteristic of waves in that medium.
    Answer: <u>**Huygens' principle**</u>

    10 These rings form as an interference pattern by reflection of light between a spherical surface and an adjacent flat surface.
    Answer: <u>**Newton's rings**</u>

    10 For ten points, these diffraction rings are often demonstrated by sending a coherent-light source, such as a laser, through a pin hole.
    Answer: <u>**Frauenhofer rings**</u>

4. Identify some twentieth-century short stories from plot descriptions, For ten points each .

10 In this F. Scott Fitzgerald short story, Charlie Wales returns to Paris after the 1929 stock market crash to get custody of his daughter Honoria, but his plans are thwarted by the behavior of his drunk friends.
Answer: **"Babylon Revisited"**

10 In this Stephen Vincent Benet short story, a primitive man visits the ruins of New York City, many years after its destruction in a nuclear war.
Answer: ' **By the Waters of Babylon"**

10 In this 1941 short story, Jorge Luis Borges traces the development of the titular institution from a simple form of entertainment for the masses to an all-encompassing instrument of chance in people's lives.
Answer: **"The Babylon Lottery"** or **"The Lottery in Babylon"** or **"The Lottery of Babylon"** or La **lotería de Babilonia**

5. Answer some questions about a certain 1931 painting, For ten points each .

10 In the background, the artist painted the rocky Catalonian seashore at Cape Creus, but the more famous imagery in this painting was supposedly derived from some overripe Camembert cheese.
Answer: The **Persistence of Memory**

10 At the right side of *T*he Persistence of Memory, a closed gold pocket watch is being attacked and devoured by these creatures.
Answer: **ants**

10 Not counting the closed gold watch that is being devoured by ants, how many melting clocks are depicted in this painting?
Answer: **3**

6. Identify some plays of Eugène Ionesco from plot descriptions, For ten points each .

10 A professor gets increasingly frustrated with his pupil's inability to learn the most obvious subjects, leading to a seething rage which ends with his murder of the pupil.
Answer: The **Lesson** or La **Leçon**

10 Berenger, an average citizen in a provincial town, witnesses how his colleagues, his friend Jean, and his secretary Daisy turn into the title animals.
Answer: **Rhinoceros** or Les **Rhinocéros**

10 Berenger can not rest until he succeeds in tracking down the title figure who is terrorizing the citizens of his perfect neighborhood.
Answer: The **Killer** or **Tueur sans gages**

7. Identify some literary works featuring characters named Saladin, For ten points each .

10 This Sir Walter Scott novel set during the Third Crusade contrasts a cruel and warlike Richard the Lionhearted with a prudent and wise Saladin.
Answer: The **Talisman**

10 In this Gotthold Lessing play urging religious tolerance, a wealthy Jewish merchant befriends Saladin, the Muslim ruler of Jerusalem, and convinces him to allow a Christian knight to marry the merchant's adopted daughter.
Answer: Nathan the Wise or Nathan der Weise

10 Saladin Chamcha, a Bombay expatriate working as an actor in England, is a protagonist of what controversial 1988 novel?
Answer: Satanic Verses

8. Answer some questions about a period in ancient Egyptian history, For ten points each .

10 Lasting from the middle of the Eleventh Dynasty to the end of the Fourteenth Dynasty, its pharaohs ruled from Thebes and Itjitawy and some of them were buried in pyramids at El-Lisht.
Answer: the Middle Kingdom

10 The Middle Kingdom began when this nomarch from Thebes overthrew the Herakleopolis kings and reunited Egypt, a deed for which he was later regarded as a second Menes.
Answer: Nebhepetre Mentuhotep II (accept Mentuhotep I since there is disagreement over whether there was a previous Mentuhotep)

10 The Middle Kingdom ended when these foreigners, whose pharaohs made up the Sixteenth Dynasty, invaded Egypt.
Answer: Hyksos

9. Organic chemistry reactions, For ten points each .

10 This alkylation of an aromatic ring and an alkyl halide using aluminum chloride as a catalyst in an example of electrophilic aromatic substitution.
Answer: Friedel-Crafts reaction

10 This is the cycloaddition between a conjugated diene and a substituted alkene to form a 6-membered ring.
Answer: Diels-Alder reaction

10 In this reaction, a primary amine is methylated using excess formic acid and formaldehyde. It will not produce quaternary ammonium salts.
Answer: Eschweiler-Clarke reaction

10. Identify some members of the Cabinet of Theodore Roosevelt, For ten points each .

10 This prominent New York lawyer served as Secretary of War during Roosevelt's first term and Secretary of State during Roosevelt's second term. He co-authored a 1908 agreement with Japanese ambassador Takahira to respect the Open Door Policy in China.
Answer: Elihu Root

10 As Secretary of War during Roosevelt's second term, this future Supreme Court Chief Justice worked to establish order in Cuba and the Philippines and was in charge of the construction of the Panama Canal.
Answer: **William Howard Taft**

10 As Attorney General during Roosevelt's first term, he prosecuted cases against Northern Securities, Standard Oil, and other trusts. He later formulated the policy of "dollar diplomacy" as Taft's Secretary of State.
Answer: **Philander Chase Knox**

11. Answer some questions about the 2006 FIFA World Cup, for the stated number of points.

5,5 For five points each, identify the country whose team won the 2006 World Cup and the country that hosted the World Cup whose team also took third place.
Answer: **Italy and Germany (in that order)**

5,5 During the finals, a French midfielder head-butted an Italian defender for allegedly insulting his mother and sister. For five points each, name the two players involved in this incident.
Answer: **Zinedine Zidane and Marco Materazzi (in any order)**

10 Zidane learned to speak Italian as a member of what club which was recently thrown out of the top division of the Italian Football League as a result of a corruption scandal.
Answer: **Juventus Football Club (or Juventus Torino)**

12. Answer some questions about the exploration of extreme places, For ten points each.

10 K2 was first surveyed during an 1856 expedition led by this English geographer and topologist after whom it is often named.
Answer: **Henry Haversham Godwin Austen (both underlined names necessary)**

10 In 1909, this American claimed to be the first person to reach the geographic North Pole. It is not clear if he actually made it to the exact location.
Answer: **Robert Edwin Peary**

10 In 1960, the U.S. Navy bathyscape *T*rieste entered and explored what extreme location?
Answer: **bottom of Mariana Trench (accept any answer that mentions Mariana Trench)**

13. Answer the following questions about the scientific advances in the year 1905 for ten points each...

10 His official citation for winning the chemistry prize is the advancement of organic chemistry "through his work on organic dyes and hydroaromatic compounds." That's probably because "he synthesized indigo" sounds just a bit too banal.
Answer: **Johann Friedrich Wilhelm Adolf von Baeyer**

10 Compared to Baeyer, this physicist's citation is simple: "For his work on cathode rays." He identified cathode rays as subatomic particles instead of radiation. But he is chiefly known as a critic of "Jewish physics", especially "the Jewish Fraud" of relativity, and later became Chief of Aryan Physics under the Nazis.
Answer: **Philipp Eduard Anton von Lenard**

10 One man who didn't win a Nobel in 1905 was this man who published papers on the photoelectric effect, Brownian Motion, and relativity.
Answer: **Albert Einstein**

14. Identify these villains from Russian musical compositions, For ten points each .

10 In Mussorgsky's *N*ight on Bald Mountain, this deity whose name means "Black God" is glorified at a Witches' Sabbath.
Answer: **Chernobog**

10 In Stravinsky's *T*he Firebird, this evil sorcerer whose soul is hidden in an egg is destroyed by Ivan Tsarevich.
Answer: **Koschei (or Kaschei or Kastchei) the Immortal**

10 In Tchaikovsky's *T*he Nutcracker, this villain leads an army against Clara but is killed by the Nutcracker.
Answer: **the Mouse King or the Rat King**

15. Answer the following related questions about the Earth's magnetic field, For ten points each .

10 According to this widely believed theory, the Earth's magnetic field is caused by the convection of molten iron and nickel along with Coriolis effects of the planet's rotation.
Answer: **Geodynamo or Dynamo Theory (prompt on magnetohydrodynamics)**

10 The last one of these events, which many believed to be inherent in the geodynamo theory, was the Brunhes-Matuyama event 780,000 years ago. The next one is predicted to be around 3000-4000 AD.
Answer: **Geomagnetic reversal or magnetic pole reversal**

10 This is the region of the earth with highest radiation intensity, due to the fact that the center of Earth's magnetic field is offset from its geographic center. Some claim it to be a symptom of the upcoming magnetic reversal.
Answer: **South Atlantic Anomaly or SAA**

16. Answer the following questions about the Chinese-American physicist Chen Ning Yang, For ten points each .

10 Yang and Tsung-Dao Lee became the first Chinese Nobel Prize winners for their work predicting this property of weak interactions.
Answer: **parity violation (accept parity symmetry breaking and equivalents)**

10 Yang is also well known for his collaboration with this Englewood, New Jersey born physicist. Their namesake invariant gauge theory gives the mathematical foundation ofthe Standard Model.
Answer: Robert <u>Mills</u>

10 This equation is sometimes known as the star-triangle relation. One of its namesakes discovered it while looking for 2-dimensional, exactly solvable, problems in statistical mechanics; unaware that Yang had derived that equation a decade earlier while looking at two-dimensional quantum field theories.
Answer: <u>Yang-Baxter</u> equation

17. Answer some questions about pyramid schemes, For ten points each .

10 The most famous example of a fraudulent pyramid scheme was devised in 1920 by this Italian immigrant who offered investors a huge, supposedly risk-free return from his postal coupon enterprise.
Answer: Charles <u>Ponzi</u>

10 Social Security in the United States is based on this system in which current contributions are used to pay current benefits. Each generation relies on the next generation for funding its retirement.
Answer: <u>pay-as-you-go</u> or <u>paygo</u>

10 This is the name given to a marketing system in which sellers get commissions from the sales of people they recruited and all other people "below" them in the scheme. Unlike ponzi schemes, it is a perfectly legal method for encouraging recruitment.
Answer: <u>multilevel</u> marketing (or <u>MLM</u>) or <u>network</u> marketing

18. Her childhood friend Jim Burden returns at the end of the novel to find that she is happily married to a Bohemian farmer named Cuzak. For ten points each :

10 Name this title character of a 1918 novel.
Answer: <u>Antonia</u> Shimerda Cuzak or *M*y <u>Antonia</u>

10 *M*y Antonia was written by what Virginia-born author of *A*lexander's Bridge and *O*ne of Ours.
Answer: Willa Sibert <u>Cather</u>

10 While attending college at Lincoln, Jim has a long relationship with this girl who craves excitement in her life and is strongly contrasted with Antonia's inner strength.

Answer: <u>Lena</u> <u>Lingard</u> (accept either name)

19. Identify these terms from ancient Greek philosophy, For ten points each .

10 In Plato's *M*eno, Socrates discusses whether this concept, which is usually translated as "virtue" or "excellence", can be taught or learned. In Aristotle's *N*icomachean Ethics, it is described as a Golden Mean between two extremes.
Answer: <u>arete</u>

10 During times of crisis, Socrates claimed to hear this divine inner voice which supposedly came from Apollo and gave him guidance. It can also be translated as "vital breath".
Answer: <u>daimon</u>

10 Leucippus of Miletus and not his more famous disciple is usually considered the founder of this theory that matter consists of an infinite number of small indivisible particles.
Answer: <u>atomism</u>

20. Identify some English politicians-turned historians, For ten points each .

10 After being forced into exile in 1667, this former Lord Chancellor under Charles II wrote the classic *H*istory of the Rebellion and Civil Wars in England.
Answer: **Edward Hyde, 1st Earl of <u>Clarendon</u> (accept Edward <u>Hyde</u>)**

10 This Whig MP used poetry to celebrate Roman history in his *L*ays of Ancient Rome, but is most renowned for his five-volume *T*he History of England from the Accession of James the Second.
Answer: **Thomas Babington, 1st Baron <u>Macaulay</u>**

10 This Tory wrote a four-volume biography of his ancestor, the Duke of Marlborough, and also won a Nobel Prize in Literature for his four-volume *H*istory of the English-Speaking Peoples.
Answer: **Sir <u>Winston</u> Leonard <u>Churchill</u> (prompt on <u>Churchill</u> because all of the Duke of Marlborough's descendants were named Churchill)**