

# DRAGOON 2013

## Round 2

Questions by the University of Illinois at Urbana-Champaign

### Tossups

1. In one story, this figure has a dream in which her plants have caught on fire; she then murders a man to use his blood to put it out. A plant with roots that are all black and whose upper portion is all white is given to a man who visits her domain. As related in the *Telegoneia*, her illegitimate son kills his father with a spear that has been tipped with stingray poison. (\*) Canens killed herself after this woman turned Picus into a woodpecker. Eurylochus escaped the charms of this woman, who lived on the island of Aeaea. Her might is silenced by moly, which is given by Hermes to a man whose followers were all turned into swine. For 10 points, name this sorceress from *The Odyssey*.

ANSWER: Circe

2. One of this play's characters smacks two of his streetwalkers after they intimate he is a pimp. Act 2 of this play sees the celebration of the 60<sup>th</sup> birthday of one of its characters, who hasn't left the building in which this work is set for 20 years. Throughout this play, a pair of characters discuss why they left "The Movement," which was run by the anarchist mother of one of its characters. In its first act, we are introduced to Pat (\*) McGloin, a man who seeks to regain his job as a police lieutenant. This play's characters include the "foolosopher" Larry Slade as well as Don Parrit, who jumps off a fire escape. For 10 points, name this drama named for the salesman Theodore Hickman, who tries to destroy the pipe dreams of the patrons of Harry Hope's saloon, a play by Eugene O'Neill.

ANSWER: *The Iceman Cometh*

3. The limping pose of the subject in this painting is completely stolen from the *Pieta* of the artist's student. A document in this work mentions a "mother of five children whose husband has died for his country" next to a bill of money. An update of this painting that includes a bowl of fruit and a fancy hat on top of a pink table was painted by (\*) Edvard Munch - that version takes the liberty of including a naked woman in the middle. The wooden box at the bottom of this painting contains the subject's and the artist's name. It depicts a man with a letter of introduction in his right hand, who is sitting in a bathtub with green draperies. For 10 points, name this Jacques-Louis David painting depicting the murder of a French Revolutionary leader.

ANSWER: *The Death of Marat* [or La Mort de Marat or Marat Assassiné]

4. This man gives his name to a specification in fluid dynamics that considers a fixed point through which parcels pass, depicting the flow using a velocity function. He is the first namesake of an equation which relates the fourth derivative of the vertical deflection with respect to the horizontal position to Young's modulus, the moment of inertia, and the transverse load. He also names 3 equations which relate the various components of (\*) angular velocity, torque, and moment of inertia in a rigid body. This man is the first namesake of a set of differential equations that can be used to find the equations of motion of a system given only the system's Lagrangian. For 10 points, name this Swiss scientist famous for his graph theory solution of the Bridges of Königsberg problem.

ANSWER: Leonhard Euler [pronounced "OIL-er." For the curious, the question references the Euler-Bernoulli and Euler-Lagrange equations]

5. Early in his career, this politician published an essay “On Railroads in” his homeland in the journal *La Revue Nouvelle*. He undertook an ambitious railroad-building program as Minister of Commerce and Agriculture, which propelled him to the post of Prime Minister. Later, he was briefly replaced by Alfonso La Marmora. This politician united rightist and leftist factions by the *connubio*, and he secretly arranged for French military aid to his country against Austria via the (\*) Plombières Agreement, which he signed with Napoleon III. Though not a monarch, this man spearheaded the effort to join his own country with the lands conquered by Garibaldi. For 10 points, name this Piedmontese politician who became the first Prime Minister of Italy.

ANSWER Camillo Benso, Count of Cavour [accept either]

6. At one point in this opera, we hear a character singing that “Love is the pulse of the universe” offstage, and in a later scene, an offstage group of carnival revelers celebrate a man whose “head is crowned with flowers.” A 2010 production of this opera at the Met was critically panned due to Leonard Slatkin’s insufficient preparation. In this opera, (\*) Giorgio sings “Di Provenza il mar” to comfort his son, who has just read a letter of farewell. Its title character sings “Ah fors’ è lui” and “Sempre libera,” and sells all her possessions to buy a country house but later returns to her old lover Baron Duphol. The *brindisi* “Libiamo ne’ lieti calici” is sung during the first act, shortly after the title character meets her admirer Alfredo Germont. For 10 points, name this opera about the courtesan Violetta by Giuseppe Verdi.

ANSWER: La Traviata

7. This country’s navy provoked one war by refusing to salute the HMS Merlin as a regular warship. This country’s navy burned the town of Sheerness as part of an operation in which it captured HMS Unity and HMS Royal Charles. This country’s navy, which launched the “Raid on the Medway,” also repulsed an invasion at the Battle of Texel. It received assistance from the (\*) “Sea Beggars” in another conflict. Maarten Romb emerged as an early star admiral of this country’s navy, which clashed with the English navy in four wars, two of which were ended by a Treaty of Westminster. The leadership of Michiel de Ruyter allowed this country to fend off invasion following the *rampjaar* of 1672. For 10 points, name this country whose navy dominated the seas during the 17th century and sailed from ports like Rotterdam.

ANSWER: the Netherlands [accept the Dutch navy or the navy of the United Provinces]

8. One of this philosopher’s thought experiments sparked the introduction of the quus function. An extended quote from Augustine’s *Confessions* that illustrates the power of words opens one of his books, which considers the example of a man who has a note reading “five red apples.” This man’s doctoral dissertation consisted of (\*) seven parts and introduced its author’s logical atomism. That work by this thinker states “The world is all that is the case.” This man used the “beetle in the box” thought experiment to consider whether a private language is consistent with reality in his book *Philosophical Investigations*. For 10 points, name this Austrian philosopher who wrote *Tractatus Logico-Philosophicus*.

ANSWER: Ludwig Wittgenstein

9. The Exeter Book poem whose title mentions *this* tells of a king’s life before and after his fall from grace. One tract that argues for the usage of this technique was written in response to Thomas Campion’s *Observations in the Art of English Poesie*. That defense of it was written by Samuel Daniel. Shakespeare’s *The Rape of Lucrece* is written in a stanza format whose (\*) name mentions this technique; that stanza consists of a tercet and two couplets and is called “[this] royale.” Depending on the number of syllables matched, this technique is classified as either “masculine” or “feminine.” For 10 points, name this technique of repeated similar sounds that is often found at the end of lines in poems.

ANSWER: rhyme [Accept “The Rhyming Poem,” “A Defense of Rhyme,” “rhyme royal,” “masculine rhyme” and “feminine rhyme” at any point.]

10. Characters in one novel by this author include a mysterious provost, who runs The Consortium, as well as a man who creates a virus that renders one third of all humanity sterile. In another of his books, the protagonist seeks out the Church of Illumination after failing to rescue a cardinal from drowning at the Fountain of the Four Rivers. (\*) Rachel Sexton is the protagonist of another of his books, in which NASA investigates an extraterrestrial meteorite in Antarctica. This author of *Inferno* wrote about a man that murders four *preferiti* using the elements of fire, water, air and earth in a book which climaxes with a piece of anti-matter being detonated over Vatican City. For 10 points, name this novelist who created Robert Langdon, who appears in *Angels and Demons*.

ANSWER: Dan Brown

11. A 2001 study by Zvolensky et al. suggested that this condition is linked to nicotine since smokers are more than twice as likely to be in it than non-smokers. The Taylor Manifest and Zung Self-Rating questionnaires are used to determine how much this state affects personality. Buspirone is a common treatment for it, which fMRI studies have linked with an overly active anterior cingulate cortex. Freud called this state (\*) “free-floating” and argued it manifests itself physically via those with conversion syndrome. PTSD and phobias are classified on this state’s namesake spectrum of disorders. For 10 points, name this state of apprehension or nervousness, whose namesake disorders may manifest themselves in social situations.

ANSWER: anxiety [or panic disorder before mention, prompt on “OCD.” ]

12. A vision at the end of this work describes microbes that convince men that they hold the infallible truth, driving them to murder. In a feverish state, the protagonist of this novel holds onto his sock for 24 hours after whining for it in his sleep. The main character was engaged to his landlady’s daughter, but the girl died of typhus. In this novel, Marfa slanders her servant, whom her husband tried to sleep with, then goes door to door to restore the servant’s name – that incident is described in a (\*) letter to the protagonist that comprises most of this work’s third chapter. A man introduced in that letter plants a 100 rouble note in a woman’s coat to frame her as a thief at a funeral lunch hosted by Katerina Ivanovna Marmeladov. The protagonist states “I wanted to become a Napoleon” to justify the central action. For 10 points, name this novel about the torment of Raskolnikov.

ANSWER: Crime and Punishment [or Prestupleniye i nakazaniye]

13. An important primary source for this polity is a series of questions posed by one ruler to the scholar al-Maghili concerning the occult practices of the clergy. That ruler of this empire was assisted by his brother Kanfari Omar, usurped the throne at the Battle of Anfao, and has a tomb whose protruding scaffolding gives it the appearance of a spiky pyramid. This empire met its demise after a (\*) battle where the enemy’s gunpowder weapons caused a cattle stampede to backfire, and was fought between Ishaq II and Judar Pasha of Morocco. Collapsing after the Battle of Tondibi, for 10 points, name this African empire ruled by Sonni Ali and Askia Muhammad, with capital at Gao.

ANSWER: Songhai

14. This element is found at the center of arginase, and four atoms of it and one calcium atom are found at the center of the oxygen-evolving complex. This element is bound to a salen ligand in the catalyst for the Jacobsen epoxidation. This element is present along with iron in the active site of one form of superoxide dismutase. This element’s dioxide is used to selectively oxidize allylic and benzylic alcohols to aldehydes. It’s not osmium, but a polyatomic ion containing this element and oxygen can be used to oxidize alkenes to (\*) vicinal diols. That polyatomic ion possesses a notable intense purple color and contains this element in a +7 oxidation state. For 10 points, name this element with atomic number 25 and symbol Mn.

ANSWER: manganese [be sure they are not saying “magnesium,” prompt on “Mn”]

15. Alberto Ginastera composed a set of “American” pieces of this type which honor Juan Jose Castro and Aaron Copland. It’s not a caprice, but a piece of this type in C minor was used as the basis for variations by both Rachmaninoff and Busoni. In another piece of this type, a persistent A-flat ostinato in the left hand is enharmonically re-spelled as a G-sharp as the piece switches from (\*) D-flat major to C-sharp minor. That piece is the longest of the set to which it belongs and is often called the “Raindrop.” The Opus 28 of Frederic Chopin consists of 24 of these pieces, one in every major and minor key. For 10 points, identify these pieces which, along with fugues, comprise J.S. Bach’s *Well-Tempered Klavier*, and which as their name suggests are often played as introductions to longer works.

ANSWER: preludes

16. In 1927, this typically non-medical substance was shown to treat rheumatism when injected intravenously. The *Norman*, *Nortz*, and *Perry* Supreme court cases are known as the “Clause” cases of this commodity. Eight nations formed a “London Pool” in 1961 in an attempt to control the value of this good. FDR’s Executive Order 6102 made it a (\*) criminal offense to possess this substance. Richard Nixon choked the market for this commodity, an act known as Nixon Shock. Samuel Brannan amassed riches by acquiring much of this substance shortly after a discovery of this at Sutter’s Mill. For 10 points, name this substance decried by William Jennings Bryan, who opposed its “standard.”

ANSWER: gold

17. The protagonist of this novel hears a story about a group of teenagers that are able to levitate while they are at an airport. One chapter of this novel describes how enormous rats devour the child María Téllez Unzátegui. Another chapter centers on Joaquin Hinojosa Belmont, whose parents build him a soccer stadium, which inspires him to become a soccer referee. Towards the end, an artist devises numerous methods to kill off all of his (\*) characters when he is unable to manage several plotlines. Some chapters of this novel detail the *novelas* a man who works at the Radio Panamericana, Pedro Comacho. Its characters include the aspiring writer Mario, who pursues the first title character while shuttling between Miraflores and Lima. For 10 points, name this novel by Vargas Llosa.

ANSWER: Aunt Julia and the Scriptwriter [or *La tía Julia y el escribidor*]

18. One man who was a member of this sect authored three “Farmer’s Letters” and authored *The Congress Canvassed*. This sect includes William White, who brought this movement to Pennsylvania and the first man to promulgate its ideas refused to take the Oath of Allegiance and was named Samuel Seabury. The General Convention of this sect is composed of a House of Bishops and a House of Deputies. This sect formally disaffiliated itself from (\*) Mark Lawrence in 2012, continuing a trend of liberalization which has included the election of Katharine Jefferts Schori as primate. This sect aroused controversy by electing the openly gay Gene Robinson as Bishop of the diocese of New Hampshire. For 10 points, name this American branch of the Anglican Communion.

ANSWER: Episcopal Church of the United States [prompt on Anglican Communion or Church, but not the “Church of England”; accept word forms like episcopalians]

19. Some early examples of these organisms had a hypocercal tail which increases their lift. Some members of this superclass have larval stages termed ammocoetes and have a buccal funnel. The “vertebrate hypothesis” holds that *Cyclostomata*, a group of these animals, is actually not monophyletic. Some of these ostracoderms are members of *Pteraspidomorphi*, which possess an armored head covering. The (\*) *Myxini* order of these animals can tie themselves into a knot and are sometimes called slime eels. One member of this order is characterized by their circular arrangement of teeth which surround their mouths. They include hagfishes and lampreys and are less complex than their bony and cartilaginous counterparts. For 10 points, name this class of fish that lacks a mandible.

ANSWER: jawless fishes [Accept “agnatha” or “agnathans” Prompt on “fish”]

20. A double exponential time algorithm for making these structures creates them from generators for a polynomial ideal and was developed by Buchberger. A theorem named for these objects states that every ideal in a polynomial ring defined over a Noetherian ring is finitely generated. In abstract algebra, one type of this structure is named for Wolfgang Gröbner. Transition matrices of a (\*) vector space are used to transform between these objects. When given a maximum set of inputs, the Gram-Schmidt process will output an orthogonal type of this mathematical structure. An example of one of these functions for the space of cubic polynomials consists of 1,x, x squared, and x cubed. For 10 points, name these spanning sets whose elements are linearly independent.

ANSWER: basis [Accept Gröbner basis. prompt on spanning sets.]

21. This man enfranchised 10,000 slaves in order to keep control over elections. This man increased the number of praetors to eight, and was the victor over Archelaus at the Battle of Orchomenus. Lucius Valerius Flaccus was sent to relieve this man of his command but was killed before he could do so. While serving as quaestor, this man persuaded Bocchus I of (\*) Mauretania to betray his kinsman. Following his victory at the Battle of the Colline Gate, this man became the first to be appointed dictator for life. This general signed the treaty which ended the first Mithridatic War, and had earlier captured the Numidian king Jugurtha, which started a long-running feud between him and his commander at the time. For 10 points, name this Roman general, the longtime rival of Gaius Marius.

ANSWER: Lucius Cornelius Sulla

## Bonuses

1. One leader of this uprising outlined her political beliefs in *Dialectic of Spontaneity and Organization*. For 10 points each:

[10] Name this German communist worker's revolt spearheaded by Rosa Luxemburg and Karl Liebknecht.

ANSWER: **Spartacist** uprising or revolt (or **Spartakusaufstand**)

[10] The Spartacist Uprising took place during this period of German government, whose presidents included Friedrich Ebert and Paul von Hindenburg.

ANSWER: **Weimar Republic**

[10] This last chancellor of the Weimar Republic tried to rein in the Nazi Party but earned the hatred of Franz von Papen, who persuaded Hindenburg to replace this man with Hitler. He was later killed during the Night of the Long Knives.

ANSWER: Kurt von **Schleicher**

2. This writer wrote a three volume novel narrated by a feline that drowns in a barrel of water at the novel's close. For 10 points each:

[10] Name this Meiji era author of *I am a Cat*.

ANSWER: Natsume **Soseki**

[10] Soseki's most lyrical novel written in Japanese is this one, whose opening sentence praises the turbidity of one's life. It focuses on an artist that visits some remote mountains, where he experiences the mysterious workings of nature.

ANSWER: The **Three Cornered World** [or **Kusamakura** or The **Grass Pillow**]

[10] Haruki Murakami claimed that after Natsume Soseki, the most popular classical Japanese author was this writer of short stories, such as "Hell Screen" and "Rashomon."

ANSWER: Ryunosuke **Akutagawa**

3. It was created by the Rome statute and is responsible for prosecuting war crimes, such as that of Laurent Gbagbo. For 10 points each:

[10] Name this court established in the Hague.

ANSWER: **International Criminal** Court [or **ICC**]

[10] This Dutch thinker and author of *On the Laws of War and Peace* is considered one of the founders of International Law.

ANSWER: Hugo **Grotius**

[10] According to a 1922 statute, this kind of precedent does not apply to rulings of the ICC. This Latin term refers to the idea that precedents are binding and must stand.

ANSWER: **stare decisis**

4. Richard Strauss edited this composer's *Treatise on Instrumentation*. For 10 points each:

[10] Identify this French guitarist and composer of *The Damnation of Faust* who used the *idée fixe* theme to represent his mad love for Harriet Smithson in the *Symphonie Fantastique*.

ANSWER: Hector **Berlioz**

[10] Berlioz wrote a massive work of this type for chorus and orchestra which calls for four brass choirs at the four cardinal directions. Franz Süssmayr completed one work of this type by his teacher after the latter's death.

ANSWER: **requiem** mass [also accept **grande messe des morts**]

[10] Berlioz's *The Damnation of Faust* includes a rendition of this traditional Hungarian tune, a march often performed as a separate extract.

ANSWER: **Rakoczy** March

5. This technique may be used in extreme programming and agile programming. For 10 points each:

[10] Identify this methodology in software development in which one programmer types code and another person reviews the recently typed code for problems.

ANSWER: pair programming

[10] The goal of pair programming is to reduce the number of these defects in a computer program. An off-by-one error is a common example of them.

ANSWER: bugs

[10] Pair programming also reduces bad coding habits, such as this one, which consists of leaving numbers and constants in the source code of a program, as opposed to reading it in from a file. The problem with this bad habit is that the entire program must be recompiled in order to change a single value.

ANSWER: hard coding

6. After the death of Chaim Weizmann, this politician offered the presidency of his country to Albert Einstein. For 10 points each:

[10] Name this first prime minister of Israel, who led his country through the war of independence.

ANSWER: David Ben-Gurion

[10] A perpetual thorn in Ben-Gurion's side during the war was this ultra-militant leader of Irgun, or Etzel. He later became prime minister himself in the 1970s and signed the Camp David Accords with Anwar Sadat.

ANSWER: Menachem Begin

[10] Irgun was a splinter group of this larger paramilitary force during the British Mandate. It later evolved into the IDF and included an elite strike force called the Palmach.

ANSWER: Haganah

7. The opening of this film shows the intertwined bodies of two lovers, covered with glittering ash. For 10 points each:

[10] Identify this film in which an unnamed French actress has a one-night-stand with a Japanese architect, who reminds her of an earlier love affair she had in Nevers.

ANSWER: Hiroshima, mon amour [or Hiroshima, my love]

[10] *Hiroshima, mon amour* by Alain Resnais is considered one of the first films of the French new wave, along with this director's *The 400 Blows*.

ANSWER: Francois Truffaut

[10] Emmanuelle Riva, who played the actress in *Hiroshima, mon amour*, recently returned to the spotlight as Anne in *Amour*, which was directed by this Austrian creator of *The White Ribbon*.

ANSWER: Michael Haneke

8. G. A. Borgese coined the term "Twilight Poets" to refer to a group of poets from this country that used musical language to convey a sense of despondency. For 10 points each:

[10] Name this country home to Guido Gozzano, as well as Petrarch.

ANSWER: Italy

[10] This 19<sup>th</sup> century Italian poet wrote about the beauty of a "shipwreck of the sea" in his poem "The Infinite." He is known for his *canti*, which convey a sense of pessimism about the state of the world.

ANSWER: Giacomo Leopardi

[10] The medieval Italian poet Matteo Boiardo wrote about the country of Cathay in a work about this knight. He is the Italian equivalent of a legendary French knight that served under Charlemagne.

ANSWER: Orlando [prompt on "Roland."]

9. In one example of this type of genetic regulation, the iron response element binding protein binds to the iron response element when it is not complexed with iron, which prevents the translation of ferritin. For 10 points each:  
[10] Name this type of genetic element exemplified by riboswitches, which are sequences of DNA or RNA which regulate the expression of genes located on the *same* molecule of DNA or RNA as the regulatory sequence.

ANSWER: cis-acting elements or cis-regulatory elements [accept CREs or CAEs]

[10] Another example of a cis-acting element is the SECIS element, which causes the UGA one of these entities to be translated as a selenocysteine. These three base pair long entities in mRNA designate which amino acids are to be added to the sequence in translation.

ANSWER: codons [accept stop codons, since UGA is normally a stop codon]

[10] The codons AGA and CGU code for this amino acid. This amino acid is hydrolyzed to produce ornithine and urea in the final step of the urea cycle, and its side chain contains 3 nitrogens in its guanidine group.

ANSWER: arginine [or Arg or R]

10. This politician's wife was convicted of the murder of Neil Heywood. For 10 points each:

[10] Name this Chinese politician who was considered a candidate for the Central Politburo but was recently sentenced to life imprisonment for bribery and abuse of power.

ANSWER: Bo Xilai

[10] Most of the news on the Bo trial has been provided by this official press outlet of the Communist party, which provides much material for the *People's Daily* Newspaper.

ANSWER: Xinhua

[10] With the Bo trial out of the way, many onlookers are waiting for this General Secretary and President of China to start launching some reforms.

ANSWER: Xi Jinping

11. This faith practices the Kanzo initiation ceremony, in which the initiates provide sacred food to mambo Ayizan. For 10 points each:

[10] Name this syncretic Haitian religion which worships *loas*.

ANSWER: voodoo [or vodun or vodou]

[10] This figure is the voodoo loa of death, usually portrayed wearing a tuxedo and top hat with a cigar in hand.

ANSWER: Baron Samedi [or Baron Saturday]

[10] This faith, named after a French educator and religious philosopher, had a major impact on Umbanda. Its ideas, which were elaborated in *The Spirits' Book*, state that religious spirits are constantly in the process of reincarnation.

ANSWER: Kardecism

12. Margaret I facilitated this union by serving as regent to her great-nephew Erik of Pomerania during his minority. For 10 points each:

[10] Name this Scandinavian union which united three countries under a single monarch until the early 16th century.

ANSWER: Kalmar Union

[10] Margaret herself hailed from this country, whose King Christian X apocryphally wore a Jewish star while his country was under Nazi occupation.

ANSWER: Denmark

[10] Several decades after the fall of the Kalmar Union, this Danish king screwed things up further by getting his country embroiled in the Thirty Years' War, gradually losing power to the nobility. He once lent his name to the Norwegian city that is now Oslo.

ANSWER: Christian IV



13. The root-mean-square end-to-end distance of these compounds is equal to their characteristic ratio times the number of bonds times the square of the bond length. For 10 points each:

[10] Name these compounds which can be formed in step-growth or chain-growth mechanisms. Consisting of many small units linked together, examples of them include plastics.

ANSWER: **polymers**

[10] This quantity is defined as the ratio of the weight-average molecular weight to the number-average molecular weight of a polymer. The standard deviation of the molecular weight distribution is equal to the number-average molecular weight times the square root of this quantity minus one.

ANSWER: **polydispersity** index [prompt "PDI"]

[10] This type of polymer consists of multiple different types of monomers attached together. Types of them include "block" and "alternating," depending on how the different monomers are arranged.

ANSWER: **copolymers**

14. Some of the figures depicted on this work include the Genii, the Gorgon sisters, and Typhoeus. For 10 points each:

[10] Name this work of art that was originally exhibited along with Gustav Mahler's version of the titular composer's ninth symphony and Max Klinger's statue of that composer in an attempt to unite the arts.

ANSWER: **Beethoven Frieze**

[10] *Beethoven Frieze* is a work of this Austrian symbolist painter who also painted a couple covered in gold, embracing each other, in *The Kiss*.

ANSWER: Gustav **Klimt**

[10] One of Klimt's greatest achievements was a series of three paintings depicting the powers of philosophy, medicine and jurisprudence, which he did for this building.

ANSWER: Great Hall of the **University of Vienna**

15. One of its poems describes a woman who comes up to the speaker but has bad teeth and "really hates poetry." For 10 points each:

[10] Name this collection whose title comes from Henry Miller's *Into the Night Life*. It contains the poems "I am waiting" and "Constantly risking absurdity."

ANSWER: A **Coney Island of the Mind**

[10] A *Coney Island of the Mind* is by this jazz-influenced American Beat poet, who co-founded the City Lights bookstore. He was prosecuted on obscenity charges after he published Allen Ginsberg's "Howl."

ANSWER: Lawrence **Ferlinghetti**

[10] Ferlinghetti also published several works by this other Beat writer, who chronicled the journeys of Sal Paradise across the United States in *On the Road*.

ANSWER: Jack **Kerouac**

16. This figure was born with a set of earrings and mail which made him pretty much invincible. For 10 points each:

[10] Name this son of Kunti and Surya, who didn't realize he was adopted, and thus the brother of the Pandavas when he fought them during the Kurukshetra.

ANSWER: **Karna**

[10] Since Arjuna's chances of winning against Karna were pretty bad due to the whole invincible thing, this deity, Arjuna's father, disguised himself as a beggar to try to get Karna's armor. He ends up giving Karna a powerful one use weapon as a reward. This deity also killed Vritra.

ANSWER: **Indra**

[10] This grandfather of the Pandavas and Kauravas wrote the Mahabharata. He wasn't actually related to the king Shantanu, but one of his half brothers had sworn an oath of celibacy, and the others were dead, so he had the responsibility of fathering heirs.

ANSWER: Veda **Vyasa**

17. This inaugural president of the NRA surrendered his Rhode Island senate seat to Nelson Aldrich. For 10 points each:

[10] Name this Union general who was defeated by Robert E. Lee at Fredericksburg.

ANSWER: Ambrose **Burnside**

[10] Burnside's IX Corps captured what is now called Burnside's Bridge at this battle, the bloodiest day in American history. Lincoln wrote the Emancipation Proclamation shortly after it.

ANSWER: Battle of **Antietam** [or the Battle of **Sharpsburg**]

[10] Burnside served as commander-in-chief of this post-war veteran's organization. John A. Logan established Memorial Day while heading this establishment that churned out five Republican presidents.

ANSWER: **Grand Army of the Republic** [or **GAR**; or **Generally All Republicans**]

18. In one form, this equation states that the imaginary unit times a gamma matrix times the covariant derivative of psi plus mass times the speed of light times psi divided by h-bar equals zero. For 10 points each:

[10] Name this equation which describes the wavefunction for spin ½ particles while taking relativistic effects into consideration.

ANSWER: **Dirac** equation

[10] The solutions to the Dirac equation are examples of these mathematical objects, which are complex vectors which change sign when they undergo a rotation of 2 pi radians.

ANSWER: **spinors** [accept **bispinors** or Dirac **spinors**]

[10] The Dirac equation contains negative energy solutions, which Dirac interpreted as positive-energy particles of this substance. Particles of this substance have the same mass but opposite charges from normal particles.

ANSWER: **antimatter**

19. One branch of this school argued that one could achieve peace of mind, or *ataraxia*, by suspension of judgement, thus freeing oneself from worries about truth-claims. For 10 points each:

[10] Name this ancient philosophical school, one branch of which sprang up at Plato's Academy. Another of its branches grew out of the teachings of Pyrrho of Elis.

ANSWER: **skepticism** [Accept word forms.]

[10] This physician-turned-philosopher recorded the most complete account of Pyrrhonian skepticism in his book *Outlines of Pyrrhonism*, which claims that skeptics do not arrive at dogma but keep investigating.

ANSWER: **Sextus Empiricus**

[10] A biographer of ancient philosophers with this name is thought to be a skeptical philosopher. A cynical philosopher from Sinope with this name carried a lantern and searched for an honest man.

ANSWER: **Diogenes** Laertius [or **Diogenes** of Sinope]

20. It begins before the Jacobite Uprisings of 1715 and concludes after much bloodshed, which allows Frank Osbaldistone to marry Diana Vernon. For 10 points each:

[10] Name this historical novel that interpolates stories about the title outlaw into its narrative.

ANSWER: **Rob Roy**

[10] *Rob Roy* was written by this Scottish author of politically charged historical romances.

ANSWER: Sir Walter **Scott**

[10] Some of Scott's best prose includes *Old Mortality* and *Castle Dangerous*, which forms this grouping of four series of novels from the *Waverly* series. It takes its name from a fictional personage who collected them before they were compiled and sent to Jedidiah Cleishbotham, the title figure.

ANSWER: **Tales of My Landlord**