

ACF Winter 2010: Temporary Autonomous Zone

Edited by Andrew Hart, Rob Carson, Trevor Davis, Dennis Jang, and Eric Mukherjee

Packet by Illinois A (Jeff Geringer, Trygve Meade, Craig Messner, and Mike Sorice), Toronto (Sinan Ulusoy, Miran Terzic, Jason Dickson, and Chris Lionel), and Miami B

Tossups

1. Shortly before this event, the official leader of one side said that “The days have gone down in the West, behind the hills, into shadow” and later claimed that his men could not win against “such reckless hate.” The attackers’ escape route was blocked by a force of Huorns, while the defenders were reinforced by a group coming from the Fords of Isen led by Erkenbrand. Before this event began, one participant remarked “That is no orc horn!” The defenders in this event were forced to retreat to the Glittering Caves after the attackers used “blasting-fire” to open a hole in the Deeping Wall. For 10 points, name this battle fought at the titular mountain fortress between the men of Rohan and Saruman’s Uruk-Hai, which ended after Gandalf’s cavalry charge and which was featured in *The Two Towers*.
ANSWER: Battle of Helm’s Deep [or Siege of Helm’s Deep; or Battle of the Hornburg; prompt on anything similar to battle between the Uruk-Hai and Rohan; or to that battle at the end of Two Towers]
2. Three years before this conflict, another conflict was sparked by the November Constitution, the culmination of the Eider Program. This conflict was temporarily averted by the Convention of Gastein, and a preliminary peace was arranged at Nikolsburg. Albrecht Roon organized this conflict’s victorious army, which utilized a new breech-loading rifle, the needle gun. A side theater to this war included the Second Battle of Custoza and resulted in the loss of Venetia. This war was resolved by the Treaty of Prague after the victory at Koniggratz by Helmut von Moltke. It began with a dispute over Schleswig and Holstein. For 10 points, name this first major conflict in Bismarck’s quest for German unification, a very short war between two major German powers.
ANSWER: Austro-Prussian War [or Seven Weeks War; prompt on German War; prompt on Unification War]
3. The equation governing these systems sets the minor-radius laplacian of ψ equal to the sum of terms containing the derivative of pressure in terms of ψ minus a term containing the poloidal current times its derivative; that equation is the Grad-Shafranov equation. One effect in these objects is a shift of the center of density away from the geometric center, a shift likewise named for Shafranov. Confinement in these devices occurs due to a driven toroidal plasma current; these devices are thus similar to stellarators, which have additional helical coils. The largest of them currently in operation is JET, which will be replaced by ITER when the latter is complete. For 10 points, name these toroidal magnetic confinement devices for hot plasmas which are candidates as nuclear fusion reactors.
ANSWER: tokamaks [accept spheromaks before “JET”; prompt on fusion reactors; or plasma devices]
4. The unknown early progenitors of these people are consistently described as “very small beer.” This group experiences a form of apotheosis in the marriage of Michael Mont to one of its members. A so-called Buccaneer who was to marry into this family died shortly after losing a lawsuit. That man, Philip Bosinney, was sued due to his affair with a woman he met while designing a house at Robin Hill subsequently owned by four different members of this family. Irene provokes the Indian summer of this family’s Old Jolyon and marries its Young Jolyon after divorcing this family’s patriarch, Soames. For 10 points, name this archetypal Victorian family, the subject of a saga consisting of *To Let*, *In Chancery* and *The Man of Property*, all by John Galsworthy.
ANSWER: the Forsytes
5. In one of this man’s works, a man on the right sitting cross-legged turns his head to watch a woman playing the piano. In another work, he depicted a woman opening a door and greeting a man sitting at a table while wearing a mask with a long nose. This artist of *Russian Music* painted a work in which a line of figures react with disgust at the sight of doctors experimenting on a monkey. In another of his paintings, skeletons duel with mops and brooms under the title character, who holds a sign saying “CIVET.” This artist of *The Scandalized Masks*, *The Vile Vivisectors*, and *Skeletons Fighting over a Hanged Man* depicted a crowd of people with masks under a banner that reads “Vive La Sociale!” in another work. For 10 points, name this Belgian painter of *Christ’s Entry into Brussels*.
ANSWER: James Ensor

6. Graminski and Lerner's melanophore screen is used to screen these proteins for drug targets, while other assays for that purpose include Arena pharmaceuticals' CART. Examples of them include Frizzled and Smoothed, and opsins have a structure similar to them. Axel and Buck determined that types of these proteins are responsible for sensing odorant molecules. These proteins interact with and activate Gustducin and Transducin. Phosphorylation of these proteins leads to arrestin binding, which causes clathrin to drag them out of the cell membrane. Upon ligand binding, these proteins split their partners into the alpha and beta-gamma subunits, leading to increasing cAMP or IP3 levels. For 10 points, name these 7-pass transmembrane receptors, named their activation of G proteins.
ANSWER: **GPCRs** [or **G-protein coupled receptors**; or **Serpentine** receptors; accept **G proteins** until "Frizzled"; prompt after]
7. One scene in this work recounts the story of Shaughnessy's squabble with Harker, the Standard Oil millionaire. One character is accused of infecting a baby with measles in one scene of this work, while another scene sees Cathleen discusses one character's former dreams of becoming a professional pianist. One character in this play is an actor who resents being associated with the one role that made him famous, though he has just bought a new "vehicle" for himself. Throughout this play, Doc Hardy is called a "quack" for his treatment of James's wife, who declares that she will become a nun during a hallucination. For 10 points, Edmund's affliction of tuberculosis and Mary's addiction to morphine is revealed to the rest of the Tyrone family at the end of what play by Eugene O'Neill?
ANSWER: **Long Day's Journey into Night**
8. This man composed choral work based on a *colinda* about sons turned into stags called "Cantata Profana." The piano suite *Out of Doors* was completed by this composer of the trio *Contrasts* and the solo piano piece "Allegro barbaro." A third piano concerto and a viola concerto were left unfinished at his death, while another of his works features a second section called "Game of the Couples" and a fourth section parodying Shostakovich's *Leningrad Symphony*. A plucked string that rebounds off the fingerboard is known as his "pizzicato," while "Six Dances in Bulgarian Rhythm" are part of his set of 153 piano pieces. The composer of *Music for Strings, Percussion, and Celesta*, this is, for 10 points, which Hungarian composer of *Concerto for Orchestra* and *Mikrokosmos*?
ANSWER: Bela **Bartok**
9. The proposal for this program included a comparison to putting out a house fire with a garden hose, and explained why it would not violate the Johnson Act. This program was opposed by a group headed by Robert E. Wood, and among those who expedited its operation were W. Averell Harriman and Maxwell Aitken. Edward Stettinius briefly headed this program, which was also led by Harry Hopkins. The inception of this program was supported in the "arsenal of democracy" speech, and this successor to Cash and Carry ultimately resulted in over forty-nine billion dollars in aid, mainly to Britain. For 10 points, name this program created by a namesake 1941 act that allowed FDR to send war materials to American allies.
ANSWER: **lend-lease** program [accept **Lend-Lease** Act]
10. This figure ordained that Bidon and Cleobis would die in their sleep as a reward for pulling the cart of this figure's priestess Cydippe. Chelone refused to attend this figure's wedding, causing the groom to turn Chelone into a tortoise. Pelias murdered his grandmother in a temple dedicated to this figure, provoking her ire. This figure prevented her child Eileithyia from breaking her crouch, which caused Alcmene great pain by prolonging the birth of a figure whom this figure pulled away from her breast as he nursed, thus creating the Milky Way. After this goddess assigned the hundred-eyed giant Argus Panoptes to guard Io, she placed his eyes in the tail of the peacock, which became her bird. For 10 points, name this cow-eyed queen of the heavens, the jealous wife of Zeus.
ANSWER: **Hera** [prompt on **Juno**]
11. The narrator of one work by this author notes that "brutish necessity wipes its hands on the napkin of a dirty cause." In that poem by this man, the "colonel of carrion" cries "Waste no compassion on these separate dead!" while the narrator asks "Where shall I turn, divided to the vein?" In a play by this author, one character remarks that to escape from life is the most dangerous crime of all. That play by this author centers on a charcoal burner named Makak who shares a jail cell with Tigre and Souris. Maud and Dennis Plunkett move to the islands to retire in another of his works, which sees characters like Hector, Achille, and Philoctete mirror the events of ancient Greek epics. For 10 points, name this author of "A Far Cry from Africa," *Dream on Monkey Mountain*, and *Omeros*, a St. Lucian poet.
ANSWER: Derek Alton **Walcott**

12. This thinker proposed a “two-track process” in which there is a division between “weak” and “strong” publics in one work. He differentiated between “avowals” and “constative” and “regulative” speech acts in his *Theory and Practice*. This thinker cited literary associations and coffeehouses as key examples in a work claiming to be an “Inquiry into a Category of Bourgeois Society.” In another work he contrasts “consent-oriented” and “success-oriented” versions of the title phenomenon whose goal is “mutual understanding.” This author of *Between Facts and Norms* and *The Structural Transformation of the Public Sphere* was a member of the Frankfurt School. For 10 points, name this late twentieth-century German philosopher, the author of *The Theory of Communicative Action*.

ANSWER: Jürgen **Habermas**

13. Degrees of freedom on which this object is not explicitly dependent are known as cyclic coordinates and correspond to conservation of conjugate momenta. The Euler equations of systems are in general relations of derivatives of this mathematical object because they are derived by extremizing the time integral of this function. This quantity is dependent in general on a system’s set of generalized coordinates and speeds, so it can be seen to be the momentum-to-speed Legendre transform of a similar function. This function is heuristically equal to the difference between the kinetic and potential energies of a system. For 10 points, name this function central to a formulation of mechanics complementary to the Newtonian and Hamiltonian formulations.

ANSWER: the **Lagrangian** [or **Lagrange function**; prompt on **L**]

14. This man intended to place animatronic gazelles on the gates to one of his works, which also features long benches designed around the shape of a worker’s buttocks and a mosaic-covered fountain in the shape of a lizard. Another of his buildings features a tower topped with a turret and a cross that is thought to represent St. George’s sword jammed into the dragon-like arched roof, as well as a façade with mullions that look like bones. This designer of the Park Güell and the Casa Batlló also created an apartment building with an undulating façade also known as “The Quarry” and a still-unfinished church whose eighteen towers are supposed to represent Jesus and the twelve Apostles. For 10 points, name this Catalan architect of *Casa Mila* and the *Sagrada Família*.

ANSWER: Antonio **Gaudí** [or Antoni Placid Guillem **Gaudí** y Cornet]

15. This man came to power after the death of his predecessor at the hands of Walter Tirel. He further solidified his position by marrying the Scottish princess Edith and by ceding lands in Normandy in the treaty of Alton. His conflict with Paschal II was settled by the Concordat of London, which also led to the return from exile of St. Anselm. This king established the Exchequer and also issued reforms in the Charter of Liberties. The death of his legitimate heir William Atheling in the White Ship Tragedy resulted in civil war between this ruler’s daughter Matilda and his eventual successor Stephen of Blois. For 10 points name this Norman ruler, nicknamed the Lion of Justice and Beaclerc, the second of William the Conqueror’s sons and first of his name to rule England.

ANSWER: **Henry I** of England [prompt on **Henry**]

16. The third section of this work concludes by citing a scene from Tasso’s *Jerusalem Delivered* as the epitome of a “passive experience,” while its fourth section announces that “what follows is speculation.” This work distinguishes between “freely flowing” and “quiescent” cathexes and draws on Weismann’s division of organisms into “mortal and immortal parts” as a biological basis for its primary thesis. An anecdote about the author’s nephew throwing a wooden reel into his bed, the “fort/da game,” demonstrates the “instinct of mastery,” and is thus one explanation of the “repetition compulsion” in this work. It proposes that “thanatos,” or the death instinct, works in concert with the title concept to drive human actions. For 10 points, name this work by Sigmund Freud about transcending bliss.

ANSWER: **Beyond the Pleasure Principle** [or **Jenseits des Lustprinzips**]

17. The sensitivity of this assay drops off with probe frequency due to state saturation, a condition in which the population imbalance becomes negligible; that drop-off occurs because the absorption probability is proportional to the state imbalance. The transverse and longitudinal relaxation times affect this technique because it hinges on detecting the results of the flip of high-energy spin states; the frequency of the radiation thus produced is proportional to the chemical shift, which is output of this form of spectroscopy. For 10 points, name this chemical spectroscopic technique in which radiation from magnetized molecules is detected via frequency overlap with an applied radio field.

ANSWER: **NMR** spectroscopy [accept **nuclear magnetic resonance** spectroscopy]

18. During the rule of this dynasty, the garrison cities of Merv and Sestan served as bases for expeditions into Central Asia and India respectively. An army of this dynasty attacked Attila in response to a loss at Marj Ardabil to forces led by Barjik. This dynasty was defeated at Akroinon, though they were able to take Rhodes and Crete. This dynasty was victorious at Karbala over Husayn ibn Ali, while the use of lethal Greek fire prevented them from taking Constantinople. After the death of the last ruler of this dynasty at the Zab river, a small offshoot survived under Abd al Rahman in Cordoba. This ruling dynasty was defeated by Charles Martel at Tours, and its capital was at Damascus. For 10 points, name this Islamic caliphate, which was followed by the Abbasid dynasty.

ANSWER: Umayyad dynasty or caliphate

19. One character in this work dreams about a man with a rifle on Petrin Hill who helps three suicidal people kill themselves; after that dream, she spits in the face of an engineer during sex. The story about Yakov Stalin's death is told in one section, in which a mugging in Cambodia results in the death of Marie-Claude's husband, who had been seeing a character trying to escape kitsch. One character in this work becomes a window washer after referring to the Oedipus tale in an anti-Communist newspaper article, and his dog Karenin dies of cancer shortly before its owners die in a truck accident. For 10 points, name this book about the experiences of Tereza, Tomáš and Sabina during and after the Prague Spring, a work by Milan Kundera.

ANSWER: *The Unbearable Lightness of Being*

20. This man angered Muslims by sleeping with his feet towards the Kaaba while in Mecca, after which he claimed that there was no way to sleep without pointing one's feet at God's house, since it is everywhere. Bhai Bala composed the most influential of the biographies of this man's life, which are called *Janamsakhis*. He disappeared while bathing in the Kali Bein. This man's followers argued over whether to cremate his body or bury it; the pro-cremation crowd cremated the flowers they had left for him, while the pro-buriers buried their flowers. His religious project was summed up by the quote "There is no Hindu, there is no Muslim," which led him to found a religious office currently occupied by a book, the *Adi Granth*. For 10 points, name this first guru and founder of Sikhism.

ANSWER: Guru Nanak Dev Ji

21. In one work by this man, Dirck's horse Roos gives out near Hasselt and Joris's dies after sighting a "dome-spire" by Dalhem, but the speaker's "horse without peer," Roland, survives the titular trip. The speaker claims he could "blend all hideous sins, as in a cup" because he has "God's warrant" in another poem by this man. This author of "How They Brought the Good News from Ghent to Aix" paired "Johannes Agricola in Meditation" in *Madhouse Cells* with a work whose speaker claims "And yet God has not said a word!" after he strangles a woman with her own hair. The speaker of another of his poems notes that its title figure, the subject of a Fra Pandolf painting, "had a heart too soon made glad." For 10 points, name this British author of "Porphyria's Lover" and "My Last Duchess."

ANSWER: Robert Browning

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Bonuses

1. This quantity is equal to one over the square root of one minus the speed parameter squared, where the speed parameter or relativistic beta is simply the ratio of an object's speed to the speed of light. For 10 points each:
[10] Name this quantity central to special relativity.
ANSWER: the **Lorentz factor** [accept Lorentz **gamma**; or relativistic **gamma**]
[10] This adjective applies in general to kinematic variables measured in the rest frame of an object. The Lorentz factor relates quantities of this kind to values of the same quantities measured in an inertial reference frame.
ANSWER: **proper**
[10] The Lorentz factor also equals the derivative of the time with respect to the proper time, so it gives the extent of this other relativistic effect, in which clocks in a moving frame seem to run slower than those in a stationary one.
ANSWER: time **dilation**
2. It involved the police interrogation of Benedict DiGerlando who claimed the guilty party had murdered his brother-in-law. For 10 points each:
[10] Name this 1964 case in which the defendant had confessed to a crime without being given the right to see his lawyer.
ANSWER: **Escobedo v. Illinois** [accept in either order]
[10] This 1966 case extended *Escobedo v. Illinois* by ruling that any confessions obtained before informing a suspect of his rights were inadmissible in court.
ANSWER: **Miranda v. Arizona** [accept in either order]
[10] This justice wrote the majority decision for *Escobedo v. Illinois* and would leave the Supreme Court one year later to serve as U.S. Ambassador to the United Nations.
ANSWER: Arthur **Goldberg**
3. Francis Kynaston's translation of this book into Latin conscientiously omits the fifth book, in which the main female character takes up with Diomedes after having been traded for Antenor by her father, Calcas. For 10 points each:
[10] Name this Middle English poem that turned Pandarus into a romantic go-between. It ends with the princely protagonist discovering his betrayal in love, seeking death in battle, and consequently being slain by Achilles.
ANSWER: **Troilus and Criseyde**
[10] This poet wrote *Troilus and Criseyde* as a free adaptation of Boccaccio's *Filostrato* and dedicated it to John Gower. His other works include "House of Fame" and *The Canterbury Tales*.
ANSWER: Geoffrey **Chaucer**
[10] The stanzas of *Troilus and Criseyde* follow this scheme, consisting of seven iambic pentameters rhymed A-B-A-B-B-C-C.
ANSWER: **rhyme royal** [or **rime royale**]
4. Identify some things related to Shintoism, for 10 points each.
[10] Shrines to Inari, like the one in Fushimi, often feature large numbers of these vermilion-painted gates, which consist of two vertical columns topped by two horizontal columns.
ANSWER: **torii**
[10] The story of the first torii, which served as a perch for roosters, can be found in both the *Kojiki* and this other compilation of Shinto legend, also known as the "Chronicle of Japan."
ANSWER: **Nihon Shoki** [or **Nihongi**]
[10] Children are given candy called *chitose ame* on this holiday, in which boys and girls at the three namesake ages are taken to shrines to celebrate various rites of passage, like wearing *hakama* or *obi* for the first time.
ANSWER: **Shichi-Go-San** [or **Seven-Five-Three**]

5. The various eyes of its author's mother, including the "eyes of Russia" and the "eyes of Czechoslovakia attacked by robots," are found in its fifth section "Litany." For 10 points each:
 [10] Written for its author's mother Naomi, name this poem which opens with a "Proem" and whose title comes from the name of a prayer in memory of the dead.
 ANSWER: "**Kaddish**"
 [10] "Kaddish" was written by this American poet, whose other works include "A Supermarket in California" and another work that opens with the line, "I saw the best minds of my generation destroyed by madness."
 ANSWER: Allen **Ginsberg**
 [10] This other Ginsberg poem argues against the Vietnam War as it describes a journey from Nebraska into Kansas and includes such imagery as "Flesh soft as a Kansas girl's / ripped open by metal explosion."
 ANSWER: "**Wichita Vortex Sutra**"

6. One theater of this war was ended with the Treaty of Dresden, and it featured the battles of Dettingen and Fontenoy. For 10 points each:
 [10] Name this 1740s war fought over Maria Theresa's right to rule the titular Habsburg-controlled nation.
 ANSWER: War of the **Austrian Succession**
 [10] Maria Theresa's claim to the throne was predicated on this 1713 document drafted by her father, Charles VI. Her opponents asserted that it violated Salic Law and supported Charles Albert of Bavaria's claim to the throne.
 ANSWER: **Pragmatic Sanction** of 1713
 [10] The French-led anti-Habsburg alliance was arranged by Duc de Belle-Isle, who was a grandson of this finance minister of Louis XIV. After Mazarin's death, this man lost favor and was replaced by Jean-Baptiste Colbert.
 ANSWER: Nicolas **Fouquet**

7. Answer the following relating to acid-base chemistry, for 10 points each.
 [10] This type of solution consists of mixing a weak acid and its conjugate base or weak base and its conjugate acid. When small amounts of acid or base are added, its pH changes very little.
 ANSWER: **buffer** solution
 [10] This equation can be derived by taking the equation for K_a , taking the log of both sides, then rearranging to give an expression in terms of pH. It can find the pH of a buffer solution nicely.
 ANSWER: **Henderson-Hasselbalch** equation
 [10] This value, which is equal to $\frac{dn}{dpH}$, is the infinitesimal change in pH with the addition of the infinitesimal amount of base. Roughly, it gives the ability of a buffer to "take" a perturbation.
 ANSWER: buffer **capacity**

8. Answer the following about some musical acts popular in Germany, for 10 points each.
 [10] This band, fronted by the oddly effeminate Bill Kaulitz, released German albums like *Schrei, Zimmer 483*, and *Humanoid*. Their English album *Scream* contains the singles "Monsoon" and "Ready, Set, Go!"
 ANSWER: **Tokio Hotel**
 [10] This female German vocalist produced the 1984 hit "99 Luftballons." An English version, "99 Red Balloons," wasn't as popular in the U.S. as the German version, though Goldfinger's cover is totally awesome.
 ANSWER: **Nena** [or Gabriele Susanne **Kerner**]
 [10] This male star of the television shows *Knight Rider* and *Baywatch* released the track "Looking for Freedom," a number one hit in Germany. He is also currently a judge on *America's Got Talent*.
 ANSWER: David Michael **Hasselhoff**

9. Its chapter titled "Alchemy of the Word" describes its author's claim that he "invented the color of the vowels! *A* black, *E* white, *I* red, *O* blue, *U* green." For 10 points each:
 [10] Name this confessional poem that includes such chapters as "Delirium I," which depicts its author's relationship with the author of "It weeps in my heart" and "My familiar dream."
 ANSWER: "A **Season in Hell**"
 [10] "A Season in Hell" was written by this French author of the collection *Illuminations* and a poem divided into twenty-five quatrains whose title entity is full of uncontrolled liberty, "The Drunken Boat."
 ANSWER: Arthur **Rimbaud**
 [10] Rimbaud was an author of this movement, which revolted against Parnassianism and sought to convey impressions by suggestion rather than statement. Its members included Verlaine and Mallarmé.
 ANSWER: **symbolism**

10. Identify the following about a seminal energy economist, for 10 points each.
 [10] This author of *A Serious Fall in the Value of Gold* names a paradox that asks why consumption of a raw material increases when a method is implemented for the more efficient consumption of said raw material.
 ANSWER: William Stanley **Jevons**
 [10] Jevon's paradox was discussed, but not named in this magnum opus of his, which discusses the titular natural resource and its relation to its use in England.
 ANSWER: "The **Coal Question**"
 [10] In another paper, William Jevons linked these periods of boom and busts with sunspots. These constructs are simply the alternating periods of contractions and expansions of an economy.
 ANSWER: **business cycles**
11. Name some things about modern Ethiopian history, for 10 points each.
 [10] An Ethiopia bonus would not be complete without mentioning this man, who ruled Ethiopia as emperor from 1930 to 1974, though he was forced to go into exile during the Italian invasion in World War II.
 ANSWER: Haile **Selassie** I [accept Ras **Tafari**; or Jah **Rastafari**]
 [10] After Selassie was deposed, this violent junta came to power. They were run out of town in the early 1990s, although they had technically ended their own governance in 1987, turning the country over to the People's Democratic Republic of Ethiopia.
 ANSWER: The **Derg** [accept **Dergue**]
 [10] This man was the chief governor of the Derg and president of the People's Democratic Republic of Ethiopia. He was tried and convicted in absentia for genocide in 2006, though he continues to find refuge in Zimbabwe.
 ANSWER: **Mengistu** Haile Mariam
12. Name some stuff about *The Birth of Tragedy*, for 10 points each.
 [10] *The Birth of Tragedy* was written by this German philosopher who also wrote *Also Sprach Zarathustra* and *Beyond Good and Evil*.
 ANSWER: Friedrich **Nietzsche**
 [10] Nietzsche claimed the birth of tragedy came out of the synthesis of two concepts. The Dionysian is associated with music and represents the chaotic world, and this other aspect is associated with sculpture and represents order.
 ANSWER: **Apollonian**
 [10] Nietzsche blames the death of tragedy on Euripides and this other figure, who believed "to be beautiful everything must be intelligible" and whom Nietzsche claims was the first "theoretical man."
 ANSWER: **Socrates**
13. Name these male ballet dancers, for 10 points each.
 [10] Often paired with Margot Fontayn during his stint with London's Royal Ballet, this former member of the Kirov Ballet defected during a 1961 tour in Paris.
 ANSWER: Rudolf **Nureyev**
 [10] This other former Kirov dancer defected in 1974. This artistic director of the American Ballet Theatre played Yuri in *The Turning Point* and had Twyla Tharp choreograph many of his works.
 ANSWER: Mikhail Nikolaevich **Baryshnikov**
 [10] This lover of Diaghilev was in the Ballet Russes. He choreographed *The Rite of Spring*, *The Afternoon of a Faun*, and *Jeux*. He was the lead in *Petrushka* and jumped out of a window in "The Spectre of the Rose."
 ANSWER: Vaslav **Nijinsky**
14. It supposedly resulted in the poisoning of Andrey Zhdanov and Alexander Shcherbakov, and it was partly blamed on the international Jewry. For 10 points each:
 [10] Name this supposed conspiracy of members of the titular profession to assassinate Soviet leaders, first reported in the January 13, 1953 issue of *Pravda*.
 ANSWER: **Doctors'** Plot [accept clear-knowledge equivalents]
 [10] Revealing the Doctors' Plot was probably the prelude to yet another purge by this personality cult-building Soviet Premier, but ended with his death. The plot was among his crimes decried in Khrushchev's Secret Speech.
 ANSWER: Josef **Stalin**
 [10] An earlier purge by Stalin resulted in the death of this man, who had allied with Stalin and Kamenev to defeat Trotsky's bid for power. A letter he supposedly wrote called for British communists to subvert the government.
 ANSWER: Grigory **Zinoviev**

15. Answer the following questions about genetic disorders, for 10 points each.
 [10] In the most common form of this genetic disorder, a female has only one X chromosome, rather than the usual two X chromosomes. This disorder generally causes sterility and short stature.
 ANSWER: Ullrich-Turner Syndrome [or gonadal dysgenesis]
 [10] These inactivated X chromosomes are notably absent in Turner Syndrome. They are inactivated as a result of Lyonization using XIST transcripts. They also contain a lot of macroH2A histone.
 ANSWER: Barr Bodies
 [10] Turner syndrome can manifest via this condition in which a person has two separate genotypes. This condition differs from chimerism in the sense that this condition arises from mutations in a single cell, rather than from two cells.
 ANSWER: mosiacism
16. One example of this musical form was originally the finale of its composer's string quartet opus 130; that example is known as the "Grosse" one of these. For 10 points each:
 [10] Name this musical form also utilized in the finale of Beethoven's "Hammerklavier" sonata. This contrapuntal technique begins with the subject in the first voice, and continues by stating the subject in all other voices.
 ANSWER: fugue
 [10] Beethoven wrote his "et vitam venturae" fugue, which is difficult for the sopranos, for the "Credo" movement of this composition. The final movement, an Agnus Dei, is notable for being interrupted by trumpets.
 ANSWER: Missa Solemnis
 [10] Igor Stravinsky also incorporated the fugue form into this chamber concerto, named after Robert Blake's Washington DC estate.
 ANSWER: Concerto in E-flat: Dumbarton Oaks [accept either underlined answer]
17. As a consequence of this god's affair with the beautiful Ahalya, he was cursed by having his testicles fall off followed by the sprouting of a thousand vaginas on his body. For 10 points each:
 [10] Name this soma-loving head of the Vedic pantheon who was the ruler of Svarga and represented the forces of thunder and rain. He released the imprisoned rivers after destroying the 99 forces of his enemy, the dragon Vritra.
 ANSWER: Indra [accept Sakra; or Saudharmendra; or Taishakuten; or or Bonten]
 [10] Among Indra's prized possessions are the thunderbolt Vajra and this steed, a four-tusked, seven-trunked white elephant, thought to have been created by Brahma from the shell of the egg from which Garuda hatched.
 ANSWER: Airavata
 [10] In one instance, Indra got his ass handed to him by Meghanada, after which the latter took a name meaning "victor over Indra." Meghanada was the son of this demonic king of Lanka, the primary villain of the Ramayana.
 ANSWER: Ravana
18. This painter's patron Étienne Chevalier can be seen with St. Stephen in one panel of his "Melun diptych," the other panel of which depicts as the Madonna Agnès Sorel, mistress of Charles VII of France. For 10 points each:
 [10] Name this fifteenth-century French painter who also painted a portrait of Pope Eugene IV and a well-known *Book of Hours*.
 ANSWER: Jean Fouquet [accept Jehan Fouquet; or Souquet]
 [10] The Master of the Shadows, an artist who worked on a *Book of Hours* for the Duc de Berry, is thought to be a member of this artistic family which includes the painters of the *Ghent Altarpiece*, Hubert and Jan.
 ANSWER: van Eyck [accept variants like de Eyck or d'Eyck or de Eck]
 [10] Jan van Eyck's better-known works include the *Arnolfini Wedding* and this probable self-portrait, in which he wears the titular colored headgear. The delightful pun "As I Can" is painted at the top of its frame.
 ANSWER: *Portrait of a* Man in a Red Turban [or the Portrait of a Man (*Self Portrait?*)]

19. Answer the following about the Euclidean geometry of triangles, for 10 points each.
- [10] This is the point at which the three perpendicular bisectors meet in a triangle. Each vertex of the triangle is equidistant from this point.
ANSWER: **circumcenter**
- [10] The incenter, on the other hand, is the intersection of these three Cevians, a fact which can be proven using either Ceva's theorem or Stewart's theorem.
ANSWER: **angle bisectors**
- [10] The extended version of this formula, which uses the semiperimeter and side lengths to find the area of a triangle, can be used to find the radius of the circumcircle.
ANSWER: **Heron**'s formula
20. This author wrote a mostly-autobiographical novel entitled *Clear Light of Day*. For 10 points each:
- [10] Name this woman, better known for being shortlisted for the Booker on the strength of her novel about a lecturer named Deven whose friend Murad invites him to interview a great Urdu poet, *In Custody*.
ANSWER: **Anita Desai** [prompt on **Desai**]
- [10] This other author wrote about a tour guide who falls in love with an American tourist in the titular story of her *The Interpreter of Maladies*, and about a man nicknamed Gogol in her novel *The Namesake*.
ANSWER: Jhumpa **Lahiri**
- [10] Both Anita Desai and Jhumpa Lahiri are writers whose parents are from this country, also the home of *Sea of Poppies* author Amitav Ghosh.
ANSWER: the Republic of **India** [or **Bharat** Ganarajya]
21. Name some Russian islands, for 10 points each.
- [10] This is Russia's largest island, and it's so big that it gets its own Oblast. It was formerly part of Japan, but was taken most recently by Russia in 1949.
ANSWER: **Sakhalin** [accept **Karafuto**; or **Saharin**; or **Sagalien**]
- [10] The Russian for "New Land" names this archipelago, which is administered by the Archangelsk Oblast and was the site of Soviet nuclear tests during the 1950s, 60s, and 70s.
ANSWER: **Novaya Zemlya** [or **Novaja Zemlja**; or **Nova Zembla**]
- [10] Russia doesn't have a claim in the disputed ownership of these South China Sea islands...yet. China, the Philippines, Malaysia, Brunei, and Vietnam all prize this collection of atolls for its supposed reserves of fossil fuels.
ANSWER: the **Spratly** Islands