

2016 MYSTERIUM: "I quiz all sounds, all thoughts, all everything"

Packet 6 – feynberg

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Tossups

1. **A ruler of this dynasty invited over 5,000 Drevlians to a funerary feast, then slaughtered them. That ruler of this dynasty converted to Christianity and named herself Yelena, but failed to convert her son. A member of this dynasty established the rota system of collateral succession and promulgated a law code that excluded capital and corporal punishment. During this dynasty, the monk Nestor wrote the (\*) *Primary Chronicle*. A leader from this dynasty defied the Mongols at the Great Stand on the Ugra River. The most famous ruler of this dynasty conquered the Kazan Khanate, personally killed his intended heir, and was the first man to call himself Tsar of Russia. For 10 points, name this dynasty supposedly founded by a Viking, which featured the kings Vladimir the Great and Ivan the Terrible.**

ANSWER: **Rurik**id dynasty

<LL European/Ancient History>

2. **This choreographer had a group of girls quizzically rest alternating cheeks on their hands, prompting the critical remark "get them a dentist!" He originally wanted to include a crashed airplane in a bizarre ballet in which a boy and two girls look for a lost tennis ball. This choreographer's most famous work was re-created by Millicent Hodson and Kenneth Archer for the Joffrey Ballet. This choreographer's most famous ballet includes an (\*) "Evocation of the Ancestors" and a "Ritual of Abduction." This choreographer was accused of indecency for appearing to masturbate at the end of *Afternoon of a Faun*. A "chosen one" dances herself to death at the end of a choreography by this lover of Sergei Diaghilev. Michel Fokine created the title role in *Petrushka* for this dancer. For 10 points, name this original choreographer of *The Rite of Spring*.**

ANSWER: Vaslav **Nijinsky**

<JR Other Arts>

3. **In the nicotinic acetylcholine receptor, an interaction of this type between the quaternary amine of acetylcholine and a certain residue leads to the conformational change needed for activation. The introduction of these interactions into an octahedral ligand field framework can either stabilize or destabilize the t-2g orbital set, depending on whether electrons are donated from these bonding orbitals or they are withdrawn into these antibonding orbitals. For two metal atoms approaching each other on the z-axis, the interaction of xz orbitals and yz orbitals is of this type, whereas interaction of the xy orbitals is not. The (\*) "merging" of these orbitals to form a delocalized system of the same name is responsible for the stability associated with conjugated alkenes and aromatic systems. There are two bonds of this "type" in a triple bond. For 10 points, name these molecular orbitals, which are most often formed by the interaction of p orbitals, and are contrasted with sigma orbitals.**

ANSWER: **pi**-orbitals [accept **pi-star** until "two bonds of this type"; prompt on "molecular orbitals"]

<SP Chemistry>

4. An unnamed character in this novel describes seeing a painting that combines *Wheatfield with Crows*, Goya's *Dog*, and *The Haywain*. After finding piles of corpses in a supermarket basement, a woman in this novel walks into a church whose statues have been covered with bandages with the "dog of tears." A character in this novel is shot by a soldier for approaching a gate for help after getting stabbed in the (\*) leg with a stiletto heel. In this novel, an old man with an eyepatch and a former prostitute with dark glasses fall in love. In its first scene, a thief helps a man home after he stops his car at a traffic light. In this novel, the leader of a group of thugs in a hospital ward is stabbed by the doctor's wife. For 10 points, name this novel by José Saramago ("joo-ZEH sa-ra-MAH-goo") in which everyone gets the title condition of sightlessness.

ANSWER: Blindness [or *Ensaio sobre a cegueira*; or *Essay on Blindness*]

<JB European Literature>

5. These products are often followed up with similarly-named "flankers." The town of Grasse is best-known for its production of these products. One of these products is still made in a factory founded by Johann Maria Farina in 1709. Ernest Beaux created an "aldehydic" one, other examples of which include Lanvin's *Arpège*. Chinese-Americans protested one of these products named *Opium*. In *Silence of the Lambs*, Hannibal Lecter is able to identify the trace of one of these products created by Nina (\*) Ricci and called *L'Air du temps* ("lair doo TOM"). Bestselling brands of these products include Jean Patou's *Joy* and *Chanel No. 5*. These products are usually applied at "pulse points" like the insides of the wrists and behind the ears. A light one has a name that unfortunately translates as "toilet water." For 10 points, name these substances, a citrusy one of which is mainly worn by men and named for the city of Cologne.

ANSWER: perfumes [or parfums; accept fragrance or scent; prompt on "cologne"]

<JR Mythology/Other>

6. This speech was given in response to Forckenbeck's lengthy arguments about Article 99, months after the introduction of the Hague Bill, which mandated a line-item outline for certain parts of the budget. This speech criticizes some members of the National Association for their dovish beliefs, and claims that borders set by the Treaty of Vienna are not favorable to a "healthy, vital state." It was given during a constitutional crisis triggered by bills on military expenditures introduced by the (\*) king. This speech claims that "the great questions of the time" are not decided by "speeches and majority resolutions" but by the title subjects. For 10 points, name this speech on German unification named for two substances and given by Otto von Bismarck.

ANSWER: "Blood and Iron" [or "Blut und Eisen"; do not accept "Iron and Blood"]

<WC European/British History>

7. These cells express glycoprotein 2-b-3-a on their surfaces, which is targeted by the monoclonal antibody abciximab. That integrin changes conformation when the other surface receptor P2Y12 binds ADP, which is secreted from dense bodies inside these cells upon activation. That process is inhibited by the drug clopidogrel. These cells can be activated by a compound generated by rearrangement of Prostaglandin H2. Splenectomy can be used to resolve the (\*) idiopathic purpura accompanied by a drop in the blood levels of these cells, which is very common in children. A "normal" level of these cells is 150,000 to 400,000 per microliter of blood. These particles are enucleate and are produced by megakaryocytes. For 10 points, name these particles in the blood that clump to form blood clots.

ANSWER: platelets [accept thrombocytes]

<SP Biology>

8. A poem in this language claims “I woke up in the morning screaming, ‘Nixon, how many children have you killed today?’,” repeatedly tells Walt Whitman that “the hour announces the time,” and states that “New York + New York = a Grave.” In this language, a poet wrote about a soldier dreaming of white lilies, and in another poem, claimed that he learned the “pride of the sun” before he learned to read. That poem in this language states “I do not hate people... But if I become hungry / The usurper’s (\*) flesh will be my food.” The “Songs of Mihyar” were written in this language by a poet who uses the pen-name Adonis. The line “Write down!” is repeated in a poem in this language, “Identity Card.” For 10 points, name this language of Mahmoud Darwish which was used to write a story about forty thieves in *One Thousand and One Nights*.

ANSWER: Arabic [or al-Arabiyyah]

<JB Other Literature>

9. A landlord named Fr  d   holds one of these objects in the background of a painting titled *At the Lapin Agile* (“lah-PAN ah-JEEL”). George Braque’s *The Portuguese* is usually interpreted as depicting a man holding one of these objects. In 1912, an artist used cardboard and string to create an interior view of one of these objects as a model for a later sheet metal sculpture. At the center of a painting, a figure holds one of these objects between Max Jacob as a singing monk and (\*) Guillaume Apollinaire as a Pierrot with a clarinet. A harlequin holds one of these instruments in *Three Musicians*, and a cross-legged man in threadbare clothes holds one in a notable Blue Period painting. For 10 points, Pablo Picasso depicted an “old” player of what stringed instrument popular in Spain?

ANSWER: guitars

<JB Visual Arts>

10. The unsolved murder of a leader of this industry, William Desmond Taylor, may have been carried out by Mary Miles Minter’s mother. The Nazi consul Georg Gyssling influenced production in this industry. Leaders of this industry proclaimed its workers an “invaluable aid to war and peace” in the Waldorf Statement. The rape of Virginia Rappe prompted the creation of a list of 36 “Don’ts and Be Carefuls” for this industry by a former (\*) Postmaster General. JFK’s crossing of an American Legion picket line helped end a controversy in this industry, and it was regulated by the Hays Code. Ten of its workers refused to testify before HUAC in 1947, prompting the blacklist of alleged Communists in this industry. For 10 points, name this industry that employed Dalton Trumbo in Hollywood, California.

ANSWER: movie industry [or Hollywood until mentioned; accept equivalents like film industry or motion picture industry; prompt on “entertainment industry” or similar; anti-prompt on “acting,” “directing,” “scriptwriting,” or more specific answers]

<JB American History>

11. In 2014, Jeff Steinhauer demonstrated an analog of this effect using sound waves in a supersonic rubidium condensate. Light produced by this effect is simultaneously amplified and redshifted by the production of a partner wave of negative frequency. The frequency scale for this phenomenon is set by one over the light-crossing time. Leonard Susskind appealed to the holographic principle to resolve the problem of (\*) information loss during this process. This phenomenon produces a blackbody spectrum of frequencies at a temperature inversely proportional to mass. Sometimes co-named for Jacob Bekenstein (“beckon-shtyne”), it is undetectable for solar-mass objects but is predicted to cause the evaporation of micro black holes. For 10 points, identify this type of radiation named for a British cosmologist.

ANSWER: Bekenstein–Hawking radiation [anti-prompt on “black hole evaporation”]

<SE Physics>

12. This poem repetitively references “my Taroc pack and my Taroc pack” in a stanza that claims that the “snows of the Tyrol, the clear beer of Vienna / Are not very pure or true.” This poem notes that “The black telephone’s off at the root / The voices just can’t worm through.” After describing “waters off beautiful Nauset,” it shifts to a “Polish town scraped flat by the roller of wars, wars, wars.” This poem recalls its author’s (\*) “Colossus” with an image of a “Ghastly statue with one gray toe / Big as a Frisco seal.” “There’s a stake in [fat] black heart” of this poem’s subject, who is told “you bastard, I’m through.” For 10 points, name this poem addressed to a “man in black with a Meinkampf look” who may be the father of its author, Sylvia Plath.

ANSWER: “Daddy”

<JB American Literature>

13. One form of this technique was first fully described by Lev Koblyakov. A piece composed with this technique includes “gamelan-style” rhythmic shifts, “koto-style” guitar playing, and has lyrics about a “red caravan on the edge of a nail.” This term was derided as “almost without meaning” by a prominent composer who uses this technique, Charles Wuorinen. This technique was first used in a Rhythm Étude titled “Modes of Values and Intensities” by Messiaen (“mess-YANN”). A piece written with this technique has an ensemble built on a continuum of timbre from alto voice and alto (\*) flute through vibraphone and xyloimba, and has movements like “L’artisanat furieux.” The use of this technique characterized the Darmstadt School. It was used to write *Le marteau sans maître* by Pierre Boulez and many pieces by Karlheinz Stockhausen. For 10 points, name this musical technique derived from twelve-tone writing, which uses a “row” or “series” to generate all the parameters of a composition.

ANSWER: serialism [accept more specific types of serialism; do **not** accept “twelve-tone”]

<JR Auditory Arts>

14. Hurtado oversaw this leader’s namesake “shock,” which notably caused the price of gasoline to rise by more than 3000 percent. His second vice president, Carlos García, was a Baptist pastor, and evangelical Protestants lent support to his Cambio 90 party. A force loyal to this leader murdered fifteen attendees of a *pollada* fundraising dinner during the (\*) Barrios Altos massacre; that organization was the Grupo Colina death squad. His government collapsed after the release of a video showing Vladimiro Montesinos, the chief of his secret police, bribing a congressman. This leader increased his power through a 1992 “self-coup” and oversaw the capture of Abimael Guzmán, head of the Shining Path. For 10 points, name this Japanese president of Peru.

ANSWER: Alberto Fujimori

<WC World History>

15. A Tibetan funerary practice involves visualizing the syllable *hrih* being pushed through the top of the head into the heart of *this* figure at death, leaving a tiny hole at the top of one’s skull. This figure is often depicted at the top of fields of merit. A depiction of this figure shows him descending with 25 bodhisattvas to pick up a figure after death. A sixteen-foot-tall statue of this figure was built by Jōchō using the *yosegi* technique and is found in Phoenix Hall. The practice of (\*) niānfō stems from one of this figure’s 48 vows.

According to one sutra, people are reborn into one of nine afterlives in this figure’s realm. That realm, Sukhavati, is known as the Western Pure Land. For 10 points, name this subject of the Infinite Life sutra, whose name is repeated a lot in Pure Land Buddhism.

ANSWER: Amitabha Buddha [or Amida Butsu; or Amitayus]

<IKD Religion>

16. The existence of one of these functions is often “proven” by invoking an extension theorem proven by Constantin Carathéodory. In locally compact topological groups, one often uses one of these functions that is defined on Borel sets and named for Alfréd Haar. One of these functions is often derived from a restriction of the “exterior” or “outer” one of these functions. These functions are defined over a family of sets that is closed under complements and unions: a sigma-algebra. These functions must be “countable additive” and send the empty set to zero. If this kind of function evaluates to zero for the set of values over which a property does not hold, that property is true (\*) “almost everywhere.” In a probability space, one of these functions tells you the likelihood of a given event. For 10 points, name these functions that assign “sizes” to sets, which are used to define Lebesgue (“luh-BEG”) integrals.

ANSWER: measures

<JR Other Science>

17. During a walk in this novel, a man talks about the imprecision of the word “nicest” and teaches the protagonist about “picturesque” landscapes. A character in this novel is jokingly told that she will find a secret passageway to a gold and ebony cabinet containing a manuscript, only to find a linen inventory in a similar cabinet in her room. In this novel, a boorish man who forces the protagonist to miss a walk with two friends later gets revenge by claiming her family is poor. While staying in (\*) Bath with the Allens, the protagonist of this novel meets fellow “Udolpho” enthusiast Isabella Thorpe. The main character of this novel suspects that General Tilney is hiding his dead wife on his estate, an idea suggested by her reading of Gothic novels. For 10 points, name this novel about Catherine Morland by Jane Austen.

ANSWER: Northanger Abbey

<JB British Literature>

18. This author’s first major book attempted to “construct the prehistory of modern positivism” in the natural and human sciences, starting with Hegel and Marx’s “Crisis of the Critique of Knowledge” and ending with vicious critiques of Freud and Nietzsche. This author continued the project of *On the Logic of the Social Sciences* and *Knowledge and Human Interests* in a book divided into volumes subtitled “A Critique of Functionalist Reason” and “Reason and the (\*) Rationalization of Society.” In that book, this thinker analyzed how weakness of the I and L in AGIL can diminish legitimacy through “colonization.” He tried to combine Talcott Parsons/Niklaus Luhmann-style systems theory with the Edmund Husserl/Alfred Schütz notion of the “lifeworld,” and imagined the “ideal speech situation.” For 10 points, name this Frankfurt School philosopher and author of *The Theory of Communicative Action*.

ANSWER: Jürgen Habermas

<JR Social Science/Thought>

19. Besides founding Johns Hopkins Hospital, William Stewart Halsted famously experienced this phenomenon for most of his career. This phenomenon depends on the Delta FosB gene. One kind of this phenomenon was studied by E. Morton Jellinek. An experiment on this phenomenon was partially conducted by Barry Beyerstein, Robert Coombs, and Patricia Hadaway at Simon Fraser University. This phenomenon was studied using rational choice theory by Kevin Murphy and Gary Becker. Rats supposedly avoided this phenomenon if given nice living conditions in Bruce (\*) Alexander’s Rat Park experiment. One of these phenomena was once called “dipsomania.” In this phenomenon, extra dopamine is gained by hijacking the reward pathway. When this phenomenon involves a dependence, ending it can involve painful withdrawal symptoms. For 10 points, name this compulsion to repeat an enjoyable but destructive behavior like gambling or drugs.

ANSWER: addiction [accept more specific answers like drug addiction; anti-prompt on “alcoholism”]

<JR Economics/Psychology>

20. This philosopher's major work consists of six two-part chapters about famous people, and a final two-part chapter, titled "To Fathom the Mind" in David Hinton's translation. This man's mother supposedly moved three times before finding a suitable place to bring him up, and is generally considered a model woman. This man's emphasis on the "heart" was mocked by a later philosopher best-known for his "butterfly dream." In an analogy to sprouts, this man imagined four basic ethical predispositions or virtues. This man supposedly studied with the author of *The Doctrine of the (\*) Mean*, Zǐsī ("tsuh-suh"). He imagined reactions to a child falling down a well to illustrate his idea that all humans are innately good. His namesake book is the last of the Four Classics, following the *Analects*. For 10 points, name this "second sage" of Confucianism.

ANSWER: **Mencius** [accept **Mèngzǐ** or **Meng** tzu ("mung-tsu"); accept answers like "Master **Meng**"]

<JR Philosophy>

## Bonuses

1. An author with this surname wrote about Mumbai's Parsi community in *Chronicle of a Corpse Bearer*. For 10 points each:

[10] Give this surname of an author of a novel in which the brothers Narayan and Ishvar work as tailors in Dina's flat during their country's turbulent 1970s.

ANSWER: **Mistry** [or Rohinton **Mistry**; or Cyrus **Mistry**]

[10] Rohinton Mistry's *A Delicate Balance* is set during the rule of a person with this surname. A man with this surname discussed his methods of "peaceful resistance" and Satyagraha in *The Story of My Experiments with Truth*.

ANSWER: **Gandhi**

[10] Mohandas Gandhi's writings were also collected in a book titled *All Men Are Brothers*, a phrase that has also been used to title a translation of this novel about 108 bandits who gather on a mountain.

ANSWER: **Water Margin** [or **Outlaws of the Marsh**; or **Shuǐ hǔ zhuàn**; or anything mentioning a tale about a **Marsh** or **Mount Liáng**]

<JB Other Literature>

2. The concentration of ozone is often measured in these units. For 10 points each:

[10] Name these units for a trace gas, which is equal to the gas's concentration integrated over a vertical column of Earth's atmosphere. It is in units of 10 micrometers of that gas's height column, if it were at STP.

ANSWER: **Dobson** unit

[10] These organic refrigerants were likely the cause of the ozone hole that formed above Antarctica during the 1970s. They generate chlorine radicals that catalyze the decomposition of ozone.

ANSWER: **chlorofluorocarbons** [accept **CFCs**]

[10] This is the rate by which the temperature of a parcel of air falls, as it rises through Earth's atmosphere. Its average value is given by 6.4 degrees Celsius per kilometer of height.

ANSWER: environmental **lapse rate** [or normal **lapse rate**]

<SP Other Science>

3. Answer some questions about eating Jesus, for 10 points each.

[10] In the sacrament of Communion, Christians partake of Jesus's flesh and blood by eating and drinking these *two* substances. Name both.

ANSWER: **bread** AND **wine** [accept more specific answers like **communion wafers**]

[10] Just before breaking the consecrated bread, the people recite the Lord's Prayer. Within the Lord's Prayer, the petition to "give us this day our daily bread" is followed by *this* petition. Description acceptable.

ANSWER: "**Forgive us our trespasses**" [or "**dimitte nobis debita nostra**"; accept any answer involving **sins** or **trespasses** being **forgiven** etc.; prompt on answers only indicating "forgiveness"]

[10] The Eucharist section of the liturgy begins with *this* prayer. You can either give its Latin name, or its first words after the standard "The Lord be with you—and with your spirit" stuff.

ANSWER: the **Sursum Corda** [or "**Lift up your hearts**"]

<JR Religion>

4. These people created the massive statue “Mangaaka.” For 10 points each:

[10] Name these people who make *Nkisi* figurines.

ANSWER: **Kongo** peoples

[10] Much Kongo art incorporates the *Yowa* cosmogram, which takes *this* general shape. Transepts form this shape with naves.

ANSWER: a **cross** [or **cruciform**]

[10] As detailed by Robert Farris Thompson, slaves across the South adopted Kongo decorative traditions for *these* sites. For instance, many took up the Kongo practice of placing the last article touched by the deceased on this site.

ANSWER: **graves** [accept reasonable equivalents like “**burial** sites”]

<JR Visual Arts>

5. In one poem, this color describes the speaker’s age and a “fuse” through which a “force... drives the flower.” For 10 points each:

[10] Identify this color. In another poem by the same author, the speaker states “Time held me [this color] and dying, though I sang in my chains like the sea.”

ANSWER: **green**

[10] Those poems, “The Force that through the green fuse drives the flower” and “Fern Hill,” were written by Dylan Thomas, an alcoholic poet from this country in the UK.

ANSWER: **Wales**

[10] Thomas referenced “the legends of the green chapels” in “Poem in October,” which is set on one of these events. A Walter Savage Landor poem set on one of these events notes “the Fire of Life... sinks, and I am ready to depart.”

ANSWER: the poet’s **birthdays**

<JB British Literature>

6. This ionic crystal structure is most likely to be present in compounds with a radius ratio less than 0.4. For 10 points each:

[10] Name this ionic crystal structure, which is similar to diamond’s cubic structure. In it, cations and anions both have coordination number 4.

ANSWER: **zincblende** [accept **sphalerite**, **zinc sulfide**, or **ZnS**]

[10] The cesium chloride ionic structure, which forms when anions and cations have roughly equal sizes, is the same as this atomic structure, which is one of the cubic Bravais lattices. It consists of one lattice point at each of the corners and one at the center of the unit cell.

ANSWER: **body-centered** cubic [accept **bcc**]

[10] Face-centered cubic, and not bcc, was conjectured by this 17th-century astronomer to be one of the most efficient sphere-packings in 3D Euclidean space. This astronomer is best known for his three laws of planetary motion.

ANSWER: Johannes **Kepler**

<SP Chemistry>



7. After the fall of the Baku Soviet, 26 people with this title were executed by firing squad. For 10 points each:

[10] Identify this title held by administrative officials in the Soviet Union until the switch to ministries in 1946.

Trotsky and Molotov both held this title for Foreign Affairs.

ANSWER: People's **Commissars**

[10] Deputy Commissar of Foreign Affairs Lev Karakhan issued a declaration promising revision of treaties with this country. The diplomacy of Adolf Joffe ("YOFF-eh") and Mikhail Borodin helped establish a military school in this country.

ANSWER: **China** [or **Zhongguo**; accept **Republic of China**; do **not** accept or prompt on "People's Republic of China" or "PRC" since that didn't exist yet]

[10] The Commissar Order mandated the execution of captured commissars during this Nazi invasion of the Soviet Union, which was codenamed for the nickname of Holy Roman Emperor Frederick I.

ANSWER: Operation **Barbarossa**

<JB European/British History>

8. Erwin Panofsky's *magnum opus* was a study of early painting named for this country. For 10 points each:

[10] Name this European country whose artists were studied by Svetlana Alpers in *The Art of Describing*. Painters from this country were often derided for focusing on minutely detailed still lifes and landscapes.

ANSWER: the **Netherlands** [accept equivalents involving the word "**Dutch**" or "**Netherlandish**"]

[10] The oft-excerpted fourth chapter of *The Art of Describing* analyzes Dutch depictions of *these* objects. Vermeer put a huge one in the background of *The Art of Painting*, and depicted their creation in *The Geographer*.

ANSWER: **maps**

[10] Alpers' first chapter centers on an intellectual with *this* last name. His son invented the pendulum clock, came up with the first mathematical wave theory of light, and was the first to describe Saturn's rings.

ANSWER: **Huygens** [Constantijn and Christiaan]

<JR Social Science/Thought>

9. Before entering one of these objects, two characters are followed around a cathedral by an elderly beadle who drones on about its bell and statues. For 10 points each:

[10] Identify this sort of location from which a torn-up letter is thrown while Emma and Leon have sex in it in a notable scene from *Madame Bovary*.

ANSWER: **carriages** [or **coaches**]

[10] *Madame Bovary* is by this French author, who always tried to use *le mot juste* ("luh moh joost") in his fiction.

ANSWER: Gustave **Flaubert** ("flow-BARE")

[10] In a carriage scene from Flaubert's *Sentimental Education*, Madame Arnoux throws some of these items out the window. A famous repetitive sentence about these items appears in Gertrude Stein's poem *Sacred Emily*.

ANSWER: **roses** [prompt on "flowers" or "bouquets"]

<JB European Literature>

10. This style is the subject of Daniel Heartz's *Music in European Capitals* and Robert Gjerdingen's work on *partimenti*. For 10 points each:

[10] Name this hit musical style of the mid-eighteenth century, often considered a highly simplified reaction to the High Baroque. It was exemplified by J. C. Bach and Luigi Boccherini ("bock-kuh-REE-nee").

ANSWER: **galant** style

[10] J. C. Bach's streamlined and symmetrical music was a major influence on *this* Classical-era composer. This composer's "lighter" music includes the serenades *A Musical Joke* and *Eine kleine Nachtmusik*.

ANSWER: Wolfgang Amadeus **Mozart**

[10] One of the most important centers of galant music was this city, where Scarlatti and the *castrato* Farinelli spent their last years. Luigi Boccherini also worked here, and wrote the quintet *Night Music in the Streets of [it]*.

ANSWER: **Madrid** [accept *Night Music in the Streets of Madrid* or *Musica notturna delle strade di Madrid*]

<JR Auditory Arts>

11. Theodore Emanuel Schmauk spread this movement to Pennsylvania. For 10 points each:

[10] Name this movement that Russell Conwell participated in by urging "get rich, young man" in his "Acres of Diamonds" speech.

ANSWER: **Chautauqua** Movement

[10] The Chautauqua Movement involved a lecture circuit aimed at spreading the "adult" type of this process. Horace Mann urged for the establishment of public institutions to provide this service to children.

ANSWER: **education** [or obvious equivalents like **teaching**]

[10] Thousands of lecture associations were established during *this* earlier adult education movement with a Latin name, which Ralph Waldo Emerson used to give many speeches.

ANSWER: **Lyceum** Movement

<JB American History>

12. This DNA base is cross-linked by cisplatin. For 10 points each:

[10] Name this base, which pairs with cytosine. It plays an important role in signalling, since a large family of proteins involved in signal transduction bind its nucleoside triphosphate.

ANSWER: **guanine** [accept **G**]

[10] G-proteins are divided into small GTP-ases, and heterotrimeric G-proteins. This group comprises the majority of small GTP-ases, and has over 150 members. Its members are usually post-translationally modified by lipid attachment, for anchoring to membranes.

ANSWER: **Ras** superfamily

[10] This subfamily of the Ras superfamily regulates intracellular actin dynamics; one of its members activates Wiskott–Aldrich syndrome protein. This is also the name of a prokaryotic factor involved in ending transcription.

ANSWER: **Rho** subfamily [accept **Rho** factor]

<SP Biology>

13. This figure returns the Tablets of Destiny to his father after defeating the giant bird Imdugud. For 10 points each:

[10] Name this Sumerian war deity who is guided through his adventures by the talking mace, Sharur.

ANSWER: **Ninurta** [or **Ningirsu**]

[10] Ninurta is the son of this god of the wind and air who was temporarily banished from his home in Nippur for impregnating his wife with the moon god Sin.

ANSWER: **Enlil** [or **Ellil**]

[10] After becoming tired of their noise, Enlil killed all humans except for Utnapishtim in this way. Rather similarly to Noah, Utnapishtim survived this event by building an ark.

ANSWER: the great **flood** [accept synonyms]

<AF Mythology/Other>

14. In response to the omitting of this commandment, Reverend Hale remarks, “Theology, sir, is a fortress; no crack in a fortress may be accounted small.” For 10 points each:

[10] Name this commandment that John Proctor forgets when Hale asks him to repeat the Ten Commandments.

ANSWER: “Thou shalt not commit **adultery**” [or the **6th** Commandment or the **7th** Commandment]

[10] Proctor violated the commandment to not commit adultery when he had an affair with Abigail Williams in this Arthur Miller play set during the Salem witch trials.

ANSWER: *The **Crucible***

[10] In another story, Tess Durbeyfield encounters a painter who sends his Sundays making religious signs like “Thou shalt not commit adultery,” as she returns to Marlott after being raped by *this* man in the Chase.

ANSWER: **Alec** d’Urberville [prompt on “d’Urberville”]

<WC American Literature>

15. Rashid al-Din al-Sinan once led this religious movement based in the fortress of Alamut. For 10 points each:

[10] Name this Shi’a Isma’ili religious movement that was founded by Hassan-e Sabbah. Members of this religious movement called *feda’i* were sent out to infiltrate the households of enemy leaders and kill them.

ANSWER: **Assassins** [or **Hashashin** or **Nizari**]

[10] The leaders of the Assassins were given the title *shaykh al-jabal*, which was mistranslated by the Crusaders as “old man of” this type of place. Many Assassin fortresses, like Alamut, were located at this type of place.

ANSWER: **mountains** [prompt on “jabal” with “What does jabal mean in Arabic?”]

[10] One victim of the Assassins was this Seljuq vizier. He authored the *Siyāsatnāma*, or *Book of Government*, while serving under Malik-Shah.

ANSWER: **Nizām al-Mulk** [or Abu Ali Hasan ibn Ali ibn Ishaq **al-Tusi**]

<WC World History>

16. This result states that it is impossible simultaneously to have a stable foreign exchange rate, free flow of capital, and independent monetary policy. For 10 points each:

[10] Name this result, which thus requires a country with a currency peg and nominal interest rate freedom to have capital controls, a situation exemplified by China.

ANSWER: **impossible trinity** [accept macroeconomic **trilemma**]

[10] The trilemma comes true when, in a country with lower interest rates, investors perform *this* action by investing in foreign countries. This term refers to any transaction that capitalizes off of a price difference between two markets.

ANSWER: **arbitrage**

[10] Markets would be arbitrage-free in this balanced, Pareto-efficient state. The French economist Léon Walras conjectured two theorems about this state, which were later proved by Arrow and Debreu in the 1950s.

ANSWER: general **equilibrium**

<SP Economics/Psychology>

17. This man sings, “There’s a part of you always standing by, Mapping out the sky” in the song “Finishing the Hat.” For 10 points each:

[10] Name this character whose work is criticized in the song “No Life” and who rapidly sings “Red red red red Red red orange Red red orange” in the song “Color and Light.”

ANSWER: **George Seurat** [accept either name]

[10] Seurat appears in *Sunday in the Park with George*, a musical whose songs were composed by this man. He later wrote the lyrics for *West Side Story* and the lyrics and score for *Sweeney Todd*.

ANSWER: Stephen **Sondheim**

[10] Sondheim also composed and wrote the lyrics for this musical, which mishmashes fairy tales like Jack and the Beanstalk and Little Red Riding Hood. It includes the songs “Agony,” “It Takes Two,” and “No One is Alone.”

ANSWER: ***Into the Woods***

<LL Other Arts>

18. In 1965, Zabusky and Kruskal used the results of the Fermi–Pasta–Ulam experiment to show that the Korteweg–de Vries equation supports waves of this type. For 10 points each:

[10] Name these nonlinear localized waves, first observed by John Russell in a Scottish canal. They maintain their shape while moving at a constant velocity.

ANSWER: **solitons**

[10] This hyperbolic differential equation supports soliton solutions, which can come in pairs called breathers. Its name is a pun on that of a relativistic wave equation which reads “box psi equals negative mu-squared psi.”

ANSWER: **sine-Gordon equation** [do not accept “Klein–Gordon equation”]

[10] Solitons can pass through one another undisturbed, just like linear signals that obey this principle. According to this principle, electric fields, wavefunctions, and other signals combine additively at every point in space.

ANSWER: principle of **superposition**

<SE Physics>

19. This tradition was spurred by the translations of Ḥunayn ibn ʿIshaq. For 10 points each:

[10] Name this general Arabic term for the work of al-Farabi, Avicenna, and Averroes, which was contrasted with the theology of *kalām*. In the Islamic world, this tradition was effectively ended by the work of al-Ghazali.

ANSWER: **falsafa**

[10] To accompany his devastating critique of *falsafa*, al-Ghazali was one of the first Islamic theologians to bring *this* tradition into the mainstream. Orders of this mystical part of Islam include the “whirling dervishes.”

ANSWER: **Sufism** [or **Tasawwuf**]

[10] Translations of works in the Arabic *falsafa* tradition were a major part of the European “renaissance of” *this* century. In this century, scholasticism was founded by figures like Peter Abelard and Saint Anselm.

ANSWER: the **12th** century [or **1100s**]

<JR Philosophy>

20. Answer the following about eclipses in ancient military history. For 10 points each:

[10] The superstition of Pythias the Lydian about an eclipse so enraged this king that he cut Pythias's son in half and had his army march between the pieces. This king of Persia then fought the battles of Thermopylae and Salamis in his invasion of Greece.

ANSWER: Xerxes I

[10] Nicias had the Athenian forces on this campaign during the Peloponnesian War wait 27 days to sail home because of a lunar eclipse, thus helping to turn this expedition into the disaster it is remembered as.

ANSWER: Sicilian Expedition [or Expedition to Sicily or Syracuse]

[10] Herodotus claims that a battle between the Lydians and the Median empire was halted by a solar eclipse which this person from Miletus had predicted.

ANSWER: Thales of Miletus

<JB European/Ancient History>